AGENZIA NAZIONALE PER LA SICUREZZA DEL VOLO

(istituita con decreto legislativo 25 febbraio 1999, n. 66)

RAPPORTO D'INCHIESTA

(deliberato dal Collegio nella riunione del 19.4.2001)

AIRPROX RELATIVI AI VOLI:

1. **AZA 1850, NAPOLI-PALERMO, DEL 13.12.2000**
2. **AZA 1766, PALERMO-MILANO MALPENSA, DEL 14.12.2000**
3. **AZA 1851, PALERMO-NAPOLI, DEL 14.12.2000**
4. **AZA 1809, PALERMO-BOLOGNA, DEL 14.12.2000**
5. **AZA 1794, PALERMO-ROMA FIUMICINO, DEL 15.12.2000**
6. **AZA 1798, PALERMO-ROMA FIUMICINO, DEL 15.12.2000**
7. **AEL 622, MILANO LINATE-CATANIA, DEL 15.12.2000**
8. **ISS 698, BOLOGNA-CATANIA, DEL 15.12.2000**

INCHIESTA TECNICA
RIGUARDANTE GLI AIRPROX RELATIVI AI VOLI:

1. AZA 1850, NAPOLI-PALERMO, DEL 13.12.2000
2. AZA 1766, PALERMO-MILANO MALPENSA, DEL 14.12.2000
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Autorità responsabile dell'inchiesta tecnica: *Agenzia nazionale per la sicurezza del volo*
Investigatore incaricato: *Com.te Franco Lodi*
Atto finale dell'inchiesta tecnica: *rapporto*

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OBIETTIVO DELL'INCHIESTA TECNICA

L'inchiesta tecnica relativa all'evento in questione, così come disposto dall'art. 827 del codice della navigazione, è stata condotta in conformità con quanto previsto dall'Annesso 13 alla Convenzione relativa all'aviazione civile internazionale, stipulata a Chicago il 7 dicembre 1944, approvata e resa esecutiva con decreto legislativo 6 marzo 1948, n. 616, ratificato con la legge 17 aprile 1956, n. 561.

L'Agenzia nazionale per la sicurezza del volo conduce le inchieste tecniche di sua competenza con "***il solo obiettivo di prevenire incidenti e inconvenienti, escludendo ogni valutazione di colpa e responsabilità***" (art. 3, comma 1, decreto legislativo 25 febbraio 1999, n. 66).

L'Agenzia nazionale per la sicurezza del volo, per ciascuna inchiesta relativa ad un incidente, redige una relazione, mentre, per ciascuna inchiesta relativa ad un inconveniente, redige un rapporto. Le relazioni ed i rapporti possono contenere eventuali raccomandazioni di sicurezza, finalizzate alla prevenzione di incidenti ed inconvenienti (art. 12, commi 1 e 2, decreto legislativo 25 febbraio 1999, n. 66).

Nelle relazioni è salvaguardato il diritto alla riservatezza delle persone coinvolte nell'evento e di quelle che hanno fornito informazioni nel corso dell'indagine; nei rapporti è altresì salvaguardato l'anonimato delle persone coinvolte nell'evento (art. 12, comma 3, decreto legislativo 25 febbraio 1999, n. 66).

"***Le relazioni e i rapporti d'inchiesta e le raccomandazioni di sicurezza non riguardano in alcun caso la determinazione di colpe e responsabilità***" (art. 12, comma 4, decreto legislativo 25 febbraio 1999, n. 66).

INFORMAZIONI SULL'EVENTO

Il giorno 21 dicembre 2000 perveniva all'Agenzia nazionale per la sicurezza del volo (ANSV) una comunicazione dell' Alitalia in cui si indicava che tra il 13 e il 15 dicembre aerei della sua flotta avevano riscontrato, nell'aerea del basso Tirreno, traffico sconosciuto all'ente del controllo del traffico aereo (nel caso di specie l'ENAV, Ente nazionale di assistenza al volo), presumibilmente di natura militare, che aveva interferito con le loro rotte.

Sulla base di questa segnalazione, l'ANSV richiedeva immediatamente all'Alitalia notizie dettagliate sugli eventi denunciati al fine di una loro valutazione per tutti gli aspetti eventualmente riguardanti la sicurezza del volo.

Il 28 dicembre pervenivano all'ANSV gli estratti di sei *air safety report* riguardanti i voli dell'Alitalia.

Lo stesso 28 dicembre, l'ANSV chiedeva all'ENAV le registrazioni delle comunicazioni radio terra-bordo-terra ed i tracciati radar relativi agli eventi denunciati.

Sulla base dei primi elementi acquisiti, l'ANSV decideva di aprire una inchiesta tecnica per possibile inconveniente grave.

Successivamente, l'ENAV informava l'Agenzia che nella medesima serie di eventi andavano compresi anche i voli Air Europe (AEL) 622 e Meridiana (ISS) 698, entrambi del 15 dicembre, ugualmente interessati da interferenze con traffico militare nella stessa zona.

Nel corso delle indagini veniva richiesta ed ottenuta la collaborazione della Procura militare della Repubblica presso il Tribunale militare di Roma e dell'Aeronautica militare, mentre l'Ambasciata degli Stati Uniti a Roma, anch'essa interpellata per avere informazioni utili per ricostruire l'esatta dinamica dei fatti denunciati, si dichiarava non autorizzata a dare informazioni, comunicando all'ANSV che il proprio Governo avrebbe inviato, in tempi brevi, una risposta ad una nota ufficiale del Governo italiano fatta dal Ministro della difesa On. Sergio Mattarella.

DATI ACCERTATI

Considerazioni generali.

Tutti gli eventi oggetto dell'inchiesta si sono verificati in spazi aerei sovrastanti le acque internazionali, classificati come spazi aerei controllati di tipo "A" sottoposti alla responsabilità dell'ENAV, che è l'ente italiano preposto ad assicurare il servizio di controllo del traffico aereo negli spazi aerei appunto di sua competenza.

Per acque internazionali (*High Seas*) si intendono quelle che si estendono al di là delle 12 miglia nautiche dalla costa.

Gli spazi aerei di tipo "A", secondo quanto previsto dall'Annesso 11 alla Convenzione relativa all'aviazione civile internazionale, stipulata a Chicago il 7 dicembre 1944, sono quegli spazi aerei dove:

- sono permessi solamente i voli IFR (cioè voli che operano secondo le regole del volo strumentale);
- a tutti i voli viene fornito il servizio di controllo del traffico aereo;
- tutti i voli sono separati l'uno dall'altro.

Per l'insieme dei casi analizzati va inoltre rilevato che:

- la situazione meteorologica della zona interessata era riportata di tempo buono, senza formazioni nuvolose e con buona visibilità;
- le comunicazioni radio fra gli aeromobili civili in volo e i controllori del traffico aereo si sono svolte regolarmente;
- le radioassistenze al suolo nell'aerea interessata dagli eventi esaminati erano funzionanti ed efficienti;
- tutti gli aeromobili interessati erano normalmente efficienti per il collegamento di linea e dotati di apparecchiatura TCAS (Traffic Alert and Collision Avoidance System); il solo MD-80 operante il volo AZA 1850 del 13 dicembre riportava qualche problema al sistema di navigazione INS, che però è risultato ininfluente ai fini dell'evento esaminato;
- tutti gli equipaggi dei voli interessati erano regolarmente certificati e abilitati al servizio di linea;
- nella maggior parte dei casi denunciati risulta non essere stato compilato, da parte degli equipaggi e dei controllori di volo, il modello ATIRF (Air Traffic Incident Report Form), così come previsto dalle norme in vigore (AIP Italia, parte RAC 1-54);

- in nessuno dei casi denunciati l'equipaggio ha operato la marcatura dell'evento sul DFDR (Digital Flight Data Recorder) e non ha altresì attuato la preservazione delle registrazioni del CVR (Cockpit Voice Recorder);
- gli aerei in esercitazione hanno volato con le luci di navigazione accese e con il transponder operante anche sulla funzione che trasmette la quota del velivolo;
- gli aerei in esercitazione provenivano tutti dalla portaerei USS Harry Truman.

Volo AZA 1850 del 13.12.2000.

Il volo, effettuato con aeromobile MD-82, marche I-DAWY, decollato da Napoli per Palermo con a bordo 99 passeggeri e 6 membri di equipaggio, si trovava in salita per il livello di volo 230 (23.000 piedi sulla regolazione altimetrica standard), diretto inizialmente al punto "Amano" (situato a 73 NM dal VOR di Sorrento ed a 89 NM dal VOR di Palermo) con una prua di 199°.

Alle 20.10.37 UTC, il comandante del volo riporta al controllore del traffico aereo di aver registrato un intervento del TCAS di bordo con l'indicazione di RA (Resolution Advisory, avviso che segnala al pilota di effettuare una manovra tramite una variazione di quota) e dichiara di fermare la sua salita a livello di volo 220 (22.000 piedi), vale a dire 1.000 piedi prima della quota autorizzata, quando le posizioni relative dei due traffici erano di 11,3 NM (Km 20,930) di distanza e 2.200 piedi di differenza di quota.

Dall'analisi del tracciato radar appare evidente che l'intervento del TCAS è stato causato dal rateo di salita del velivolo Alitalia confrontato con la traiettoria convergente del velivolo militare. Il TCAS, pur intervenendo correttamente, non è in grado di discriminare il livello di volo finale del velivolo civile, che era stato autorizzato a livello di volo 230, e quindi separato di 1.000 piedi dal traffico militare, che manteneva livello di volo 240.

Alle 20.11.02 la traiettoria del velivolo "sconosciuto" intersecava quella dell'aereo Alitalia (che arrivava sullo stesso punto dopo 45 secondi) ad una distanza di 5,8 NM (Km 10,743) e con una differenza di quota di 1.600 piedi; da questo momento in poi, e cioè da quando il traffico militare oltrepassa la traiettoria di volo del velivolo civile, ha termine il conflitto di traffico poiché le traiettorie sono libere.

Questo evento, in cui non è stata rilevata una situazione di mancanza di sicurezza (sotto-separazione), va quindi classificato:

- secondo la normativa ICAO (DOC 4444), come *airprox* di classe C (***no risk of collision***);
- secondo la normativa della Safety Regulation Commission di EUROCONTROL, come *airprox* di tipo E (***occurrences which have no safety significance***).

Volo AZA 1766 del 14.12.2000.

Il volo, effettuato con aeromobile MD-80, marche I-DATK, decollato da Palermo per Milano Malpensa con a bordo 62 passeggeri e 7 membri di equipaggio, si trovava in salita diretto al VOR di Ponza per il livello di volo 280 (28.000 piedi sulla regolazione altimetrica standard) ed una prua di 356°, quando, all'attraversamento del livello di volo 180 (18.000 piedi), il TCAS di bordo gli segnalava la presenza di un traffico a circa 15 NM (Km 27,783). Da parte del controllore del traffico aereo veniva nel contempo segnalata la presenza di altri traffici sconosciuti a distanze e quote tali, in ogni modo, da non interessare la traiettoria dell'aereo Alitalia.

Il comandante del velivolo, comunque, per misura precauzionale, modificava la propria rotta con un'accostata a sinistra di 10°.

Dall'analisi del tracciato radar si evidenzia che l'aereo di linea è stato interessato da uno soltanto dei traffici riportati e comunque con una differenza di quota mai inferiore a 1.300 piedi.

Questo evento, in cui non è stata rilevata una situazione di mancanza di sicurezza (sotto-separazione), va quindi classificato.

- secondo la normativa ICAO (DOC 4444), come *airprox* di classe C (***no risk of collision***);
- secondo la normativa della Safety Regulation Commission di EUROCONTROL, come *airprox* di tipo E (***occurrences which have no safety significance***).

Volo AZA 1851 del 14.12.2000.

Il volo, effettuato con aeromobile MD-80, marche I-DANH, decollato da Palermo per Napoli con a bordo 55 passeggeri e 6 membri di equipaggio a bordo, si trovava in salita verso il livello di volo 260 (26.000 piedi sulla regolazione altimetrica standard) con una prua di 018° diretto al punto Berol (130 NM dal VOR di Palermo e 65 NM dal VOR di Sorrento) quando il controllore del traffico aereo gli segnalava la presenza di traffici sconosciuti, probabilmente militari, a tutti i livelli, lungo la rotta pianificata.

Alle 18.26 UTC il controllore del traffico aereo informa l'equipaggio di un traffico a circa ore 11 dall'aereo Alitalia, alla distanza di 28 NM (Km 51,863) ed al livello di volo 250 (25.000 piedi); lo stesso controllore suggerisce all'equipaggio di fermare la salita al livello di volo 240 (24.000 piedi).

Dall'analisi del tracciato radar risulta che il traffico era costituito da due aeromobili che volavano in coppia, stabilizzati a 24.800 piedi e precedevano l'aereo dell'Alitalia, che volava ad una velocità superiore a quella dei due aeromobili sconosciuti, con la conseguenza che la distanza iniziale di 28 NM è venuta progressivamente e lentamente a diminuire fino ad un minimo di 4,4 NM (Km 8,149).

Considerando che a tale distanza (4,4 NM) la separazione di quota era di 800 piedi, l'evento dovrebbe essere considerato come una sottoseparazione; per contro, tale sottoseparazione, valutata la dinamica dei fatti rilevata dal tracciato radar, può essere considerata non influente ai fini della sicurezza.

Pertanto questo evento va classificato:

- secondo la normativa ICAO (DOC 4444), come *airprox* di classe C (***no risk of collision***);
- secondo la normativa della Safety Regulation Commission di EUROCONTROL, come *airprox* di tipo E (***occurrences which have no safety significance***).

Volo AZA 1809 del 14.12.2000.

Il volo, effettuato con aeromobile MD-80, marche I-DAVD, decollato da Palermo per Bologna con 40 passeggeri e 6 membri di equipaggio a bordo, era in crociera, a livello di volo 280 (28.000 piedi sulla regolazione altimetrica standard) e a 94 NM dal VOR di Palermo e 79 NM dal VOR di Ponza quando si è trovato - contemporaneamente al volo AZA 1851 sopracitato - ad interessare una zona con intenso traffico sconosciuto.

Dall'esame del tracciato radar risulta che la maggior parte di tali traffici non ha interferito con la rotta dell'aereo Alitalia, salvo che in due casi.

Nel primo caso, alle 18.26 UTC, il traffico sconosciuto è stato rilevato ad una distanza minima di 5,1 NM (Km 9,446) e ad una quota di 900 piedi di differenza; nel secondo caso, alle 18.30 UTC, il traffico sconosciuto è stato rilevato ad una distanza minima dall'aereo Alitalia di 1,3 NM (Km 2,407), ma con una differenza di quota di 1.300 piedi.

Pertanto, non essendosi rilevata una situazione di mancanza di sicurezza (sottoseparazione), questo evento va classificato:

- secondo la normativa ICAO (DOC 4444), come *airprox* di classe C (***no risk of collision***);
- secondo la normativa della Safety Regulation Commission di EUROCONTROL, come *airprox* di tipo E (***occurrences which have no safety significance***).

Volo AZA 1794 del 15.12.2000.

Il volo, effettuato con aeromobile MD-82, marche I-DAVC, operava da Palermo per Roma Fiumicino con 132 passeggeri e 6 membri di equipaggio a bordo e si trovava in fase di salita verso il livello di volo 280 (28.000 piedi sulla regolazione altimetrica standard) sul punto "Luron" a circa 50 NM dal VOR di Palermo.

All'attraversamento del livello di volo 180 (18.000 piedi), il volo Alitalia veniva informato dal controllore del traffico aereo della presenza di intenso traffico non identificato in varie posizioni e livelli che interessavano la sua rotta. Alcuni degli aeromobili segnalati venivano anche rilevati dal TCAS di bordo e riportati dall'equipaggio agli operatori del controllo.

Dall'esame del tracciato radar risulta che la totalità degli aeromobili sconosciuti non ha interferito con la rotta dell'aereo civile; il caso che ha interessato l'AZA 1794 più da vicino ha intersecato la sua rotta ad una distanza minima di 5,8 NM (Km 10,743) e con una differenza di quota di 4.600 piedi.

Questo evento, in cui non è stata rilevata una situazione di mancanza di sicurezza (sottoseparazione), va quindi classificato:

- secondo la normativa ICAO (DOC 4444), come *airprox* di classe C (***no risk of collision***);
- secondo la normativa della Safety Regulation Commission di EUROCONTROL, come *airprox* di tipo E (***occurrences which have no safety significance*****).**

Volo AZA 1798 del 15.12.2000.

Il volo, effettuato con aeromobile MD-80, marche I-DAVW, operava da Palermo per Roma Fiumicino con 86 passeggeri e 5 membri di equipaggio a bordo e si trovava 45 NM a sud del VOR di Ponza stabilizzato al livello di volo 280 (28.000 piedi sulla regolazione altimetrica standard) con una prua di 360°.

Dopo il decollo, il controllore del traffico aereo informava l'equipaggio della presenza lungo la rotta di numerosi aeromobili sconosciuti a quote sconosciute.

Dall'analisi del tracciato radar risulta che tali traffici, salvo che in un caso, hanno operato a quote e distanze tali da non interferire con la traiettoria del volo Alitalia.

Come testé detto, in un solo caso, verificatosi alle 20.17 UTC, e debitamente rilevato anche dal TCAS di bordo, un velivolo sconosciuto, volando alla stessa quota e con rotta intersecante, ha attraversato la traiettoria del volo AZA 1798 ad una distanza minima di 3,1 NM (Km 5,741).

Il comandante dell'aeromobile Alitalia ha seguito le indicazioni di RA (Resolution Advisory) fornite dal TCAS, variando la propria quota sino a scendere a 27.200 piedi, per poi riprendere, non appena libero dal traffico, il livello di volo 280 precedentemente autorizzato.

Dall'esame del tracciato radar si evince che l'aeromobile sconosciuto ha manovrato per variare la sua rotta in maniera non sufficiente a mantenersi oltre la distanza minima prevista di 5 NM.

Questo evento, in cui è stata riscontrata **una sottoseparazione,** va quindi classificato:

- secondo la normativa ICAO (DOC 4444), come *airprox* di tipo B (***safety not assured***);

- secondo la normativa della Safety Regulation Commission di EUROCONTROL, come *airprox* di tipo B (***safety margins not respected***).

Volo AEL 622 del 15.12.2000.

Il volo, effettuato con aeromobile Airbus 320, marche I-PEKZ, operava da Milano Linate per Catania con 110 passeggeri e 7 membri di equipaggio a bordo.

Stabilizzato a livello di volo 330 (33.000 piedi sulla regolazione altimetrica standard), a circa 50 NM a sud del VOR di Ponza con rotta 176°, alle 20.06 UTC, veniva informato dal controllore del traffico aereo della presenza di intenso traffico di aeromobili sconosciuti a quote sconosciute.

Dall'analisi del tracciato radar viene confermata la presenza di tale traffico che, comunque, non ha mai interferito con la rotta e la quota dell'aeromobile dell'Air Europe.

Il caso più significativo è avvenuto alle 20.16 UTC, quando uno degli aeromobili sconosciuti è transitato a 3 NM dal velivolo civile, ma con una differenza di quota di 2.100 piedi.

Questo evento, in cui non è stata rilevata una situazione di mancanza di sicurezza (sottoseparazione), va quindi classificato:

- secondo la normativa ICAO (DOC 4444), come *airprox* di classe C (***no risk of collision***);
- secondo la normativa della Safety Regulation Commission di EUROCONTROL, come *airprox* di tipo E (***occurrences which have no safety significance***).

Volo ISS 698 del 15.12.2000.

Il volo, effettuato con aeromobile MD-80, marche I-SMET, operava da Bologna a Catania e si trovava stabilizzato a livello di volo 270 (27.000 piedi sulla regolazione altimetrica standard), con una prua di 155°, quando veniva ripetutamente avvisato dall'ente di controllo del traffico aereo della presenza di numerosi traffici militari non in contatto radio con l'ente stesso.

Alle ore 15.19.00 UTC l'equipaggio del velivolo civile segnalava di avere avuto un segnale di RA (Resolution Advisory) dal TCAS di bordo, del tipo "*climb*, *climb*!", che lo stesso equipaggio prontamente eseguiva effettuando una salita rapida da livello di volo 270 a livello di volo 290.

Dal tracciato radar si evince che il traffico militare, che inizialmente volava alla sinistra dell'aeromobile civile, era in salita con una traiettoria di 310° intersecante quella dell'aereo civile; ad una distanza di 8 NM, l'aereo militare vira sulla sua destra di 50°, assumendo la prua di 360°, divergente da quella dell'aereo civile e quindi non più in conflitto.

Anche se le traiettorie dei due aerei erano già divergenti, per effetto della minore velocità dell'aereo militare rispetto a quella dell'aereo civile è successo che, dopo circa 30 secondi, i due

velivoli si siano trovati sottoseparati, ad una distanza minima di 3 NM, con una differenza di quota di 300 piedi.

Subito dopo, alle 15.19.40, un altro aereo militare, anch'esso in salita ad una distanza di 8 NM con una traiettoria di circa 285° intersecante quella dell'aereo civile, effettuava una virata sulla sua sinistra, assumendo una prua di 245° che lo portava ad attraversare la traiettoria dell'aereo civile ad una distanza di 7 NM. Da questo momento cessava il conflitto di traffico, ma poiché la velocità dell'aereo militare era inferiore a quella del velivolo civile la distanza fra i due aerei si è ulteriormente ridotta sino ad un minimo di 4 NM.

Pertanto, la valutazione che si può fare è che, malgrado gli aerei si siano avvicinati a distanze inferiori a quelle minime previste, ciò è avvenuto dopo che gli aerei non erano più in conflitto di traffico.

Vale la pena però ricordare che la definizione di *airprox* (DOC 4444) lascia al pilota la piena discrezionalità di valutazione dell'evento. Per cui, anche se ad una valutazione a posteriori non si rilevano effettivi pericoli, rimane la inopportuna situazione di incertezza e di apprensione in cui sono venuti a trovarsi i piloti e i controllori di volo.

Questo evento, in cui sono state riscontrate **due sottoseparazioni**, va quindi classificato:

- secondo la normativa ICAO (DOC 4444), come *airprox* di tipo B (***safety not assured***);
- secondo la normativa della Safety Regulation Commission di EUROCONTROL come *airprox* di tipo B (***safety margins not respected***).

ANALISI

L'insieme degli episodi analizzati è avvenuto nell'ambito di una esercitazione di aeromobili imbarcati sull'USS Harry Truman, svoltasi dal 13 al 15 dicembre 2000 nell'area sovrastante la zona di mare del basso Tirreno compresa fra la penisola italiana, la Sicilia e la Sardegna.

Tale area è interessata da importanti e congestionate aerovie, che sono utilizzate sia per i collegamenti delle isole con la terraferma, sia per quelli dell'Europa con l'Africa e, attraverso la Grecia, con il medio ed estremo Oriente.

In particolare, la Convenzione relativa all'aviazione civile internazionale, stipulata a Chicago il 7 dicembre 1944, prevede, all'art. 3, quanto segue:

- lettera a): "*La presente Convenzione è applicabile solo agli aeromobili civili e non si applicherà agli aeromobili di Stato*";
- lettera b): "*Gli aeromobili usati nei servizi militari, doganali e di polizia saranno considerati come aeromobili di Stato*";
- lettera d): "*Gli Stati contraenti s'impegnano, nell'emanare le disposizioni per i propri aeromobili, a tenere in debito conto* (due regard) *la sicurezza della navigazione degli aeromobili civili*".

Per quanto sopra, il Dipartimento della difesa americano ha emanato una direttiva per i propri aeromobili militari (DOD 4540.1, "Use of Airspace by US Military Aircraft and Firing over High Seas", in parte implementato attraverso il capitolo 7 del General Planning), dove vengono fissate le procedure che gli aeromobili militari dovranno seguire per ottemperare alla prescrizione del "*due regard*", volte a garantire la sicurezza della navigazione degli aeromobili civili; tale direttiva precisa altresì che tali procedure garantiscono una sicurezza equivalente a quella fissata dalle regole dell'ICAO (International Civil Aviation Organization), l'organizzazione specializzata dell'ONU istituita con la suddetta Convenzione di Chicago del 1944.

L'ICAO, in particolare, sia attraverso l'Annesso 11 "Air Traffic Services" alla Convenzione di Chicago del 1944, sia attraverso il documento DOC 9554-AN/932 "Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations", ha fissato dei principi e delle procedure mirati ad assicurare il coordinamento tra le autorità militari e quelle civili responsabili della gestione del traffico aereo, nel caso, appunto, di attività militari che possano interessare voli di aeromobili civili.

A tal proposito va rilevato che, proprio in ottemperanza a quanto raccomandato dalle fonti normative testé citate, la prassi usata dagli uffici operazioni delle portaerei USA della Sesta Flotta consiste nell'invio di un messaggio di notifica (*Notices of Intent*) al NAS (Naval Air Station) di

Sigonella, il quale ha il compito di rilanciarlo attraverso la rete di telecomunicazioni AFTN (Aeronautical Fixed Telecomunications Network) agli enti aeronautici civili di competenza.

Nel caso in esame, tale messaggio non è mai pervenuto al NAS di Sigonella, e quindi non è stato rilanciato agli enti competenti, mentre risulta essere pervenuto ad altri enti italiani, che, però, erano in indirizzo solamente "per conoscenza" e cioè senza obbligo di attivarsi.

Va inoltre segnalato ciò che il Comandante americano del NAS di Sigonella riferisce in una nota inviata al Comandante del 41° Stormo dell'Aeronautica militare, di stanza sulla stessa base di Sigonella: secondo tale comunicazione, riportata in allegato al presente rapporto, il mancato ricevimento del messaggio di notifica (*Notices of Intent*) sarebbe stato causato da una avaria agli apparati di telecomunicazione del Centro comunicazioni di Sigonella. Lo stesso Comandante americano precisa altresì che il suo personale, durante tutto il periodo delle esercitazioni in oggetto, ha operato a stretto contatto con i colleghi del 41° Stormo, garantendo tutte le informazioni riguardanti le operazioni di volo della USS Harry Truman.

Non risulta però che l'ENAV, l'ente italiano preposto ai servizi di assistenza al volo, abbia ricevuto le predette informazioni.

Di conseguenza, è venuto a mancare il coordinamento militare-civile previsto dalle norme internazionali (Annesso 11 e DOC 9554-AN/932) e non è stato emesso alcun avviso agli aeronaviganti (NOTAM) riguardante le modalità di svolgimento della esercitazione in oggetto.

Lo stesso motivo ha impedito l'eventuale spostamento della zona di esercitazione (così da non interferire con le rotte civili pianificate) o la riprogrammazione dei voli commerciali su rotte alternative.

Ciò premesso, anche se dall'analisi effettuata risultano soltanto tre sottoseparazioni, è indubbio che la mancata informazione sull'evento, protrattosi per tre giorni consecutivi con l'impiego di numerosi velivoli sull'intera area del basso Tirreno, abbia indotto un elevato stato di allarme negli equipaggi dei velivoli civili coinvolti e nei controllori del traffico aereo.

Va infine osservato che le prescrizioni del "*due regard*" (DOD 4540.1) non sono state rigidamente rispettate dai velivoli militari statunitensi, dal momento che alcuni di essi hanno operato in prossimità di aeromobili civili con separazioni inferiori a quelle minime previste e pubblicate.

Ciò, come già detto e riportato caso per caso, non ha comportato effettivi rischi di collisione; tuttavia si ritiene comunque inaccettabile che:

- gli equipaggi degli aeromobili civili si siano trovati nelle vicinanze di aeromobili sconosciuti, di cui non si conoscevano le intenzioni e l'evoluzione delle traiettorie;
- i controllori del traffico aereo si siano trovati in condizioni tali da non poter garantire adeguata assistenza ai voli civili, in quanto anch'essi privi di informazioni sulle intenzioni e sulle traiettorie, nonché impossibilitati al contatto radio diretto con i velivoli militari.

CONCLUSIONI

In tutti i casi esaminati non è stato riscontrato un reale pericolo di collisione, anche se sono state erose, in alcuni casi, le distanze minime di sicurezza.

Lo stato di allarme e l'apprensione dei piloti dei voli civili per le interferenze del traffico militare sono stati causati dalla mancanza di comunicazione.

RACCOMANDAZIONI DI SICUREZZA

Per il futuro si raccomanda quanto segue.

a) Le Autorità responsabili diano piena attuazione alle disposizioni di cui al capitolo 2 (2.16, 2.17) dell'Annesso 11 alla Convenzione di Chicago del 1944 e a quelle del DOC 9554-AN/932 dell'ICAO, attivando un coordinamento "preventivo e durante", in modo tale da rendere lo spazio aereo più sicuro ed ordinato.

b) In ogni caso, l'ENAV, in presenza di reiterati avvistamenti di traffico non notificato, provveda ad acquisire le pertinenti informazioni, attivi il necessario coordinamento e, in assenza di tale coordinamento, provveda a spostare i voli civili su rotte alternative.

c) Le comunicazioni di esercitazioni militari tra le Autorità interessate avvengano per tramite di sistemi che diano garanzia di avvenuta ricezione.

INDICE DEGLI ALLEGATI

Allegato L: messaggio di notifica (*Notices of Intent*) dell'USS Harry Truman del 7.12.2000

Allegato M: messaggio di notifica (*Notices of Intent*) dell'USS Harry Truman dell'11.12.2000

Allegato N: nota del Commanding Officer, US Naval Air Station Sigonella, del 12.1.2001

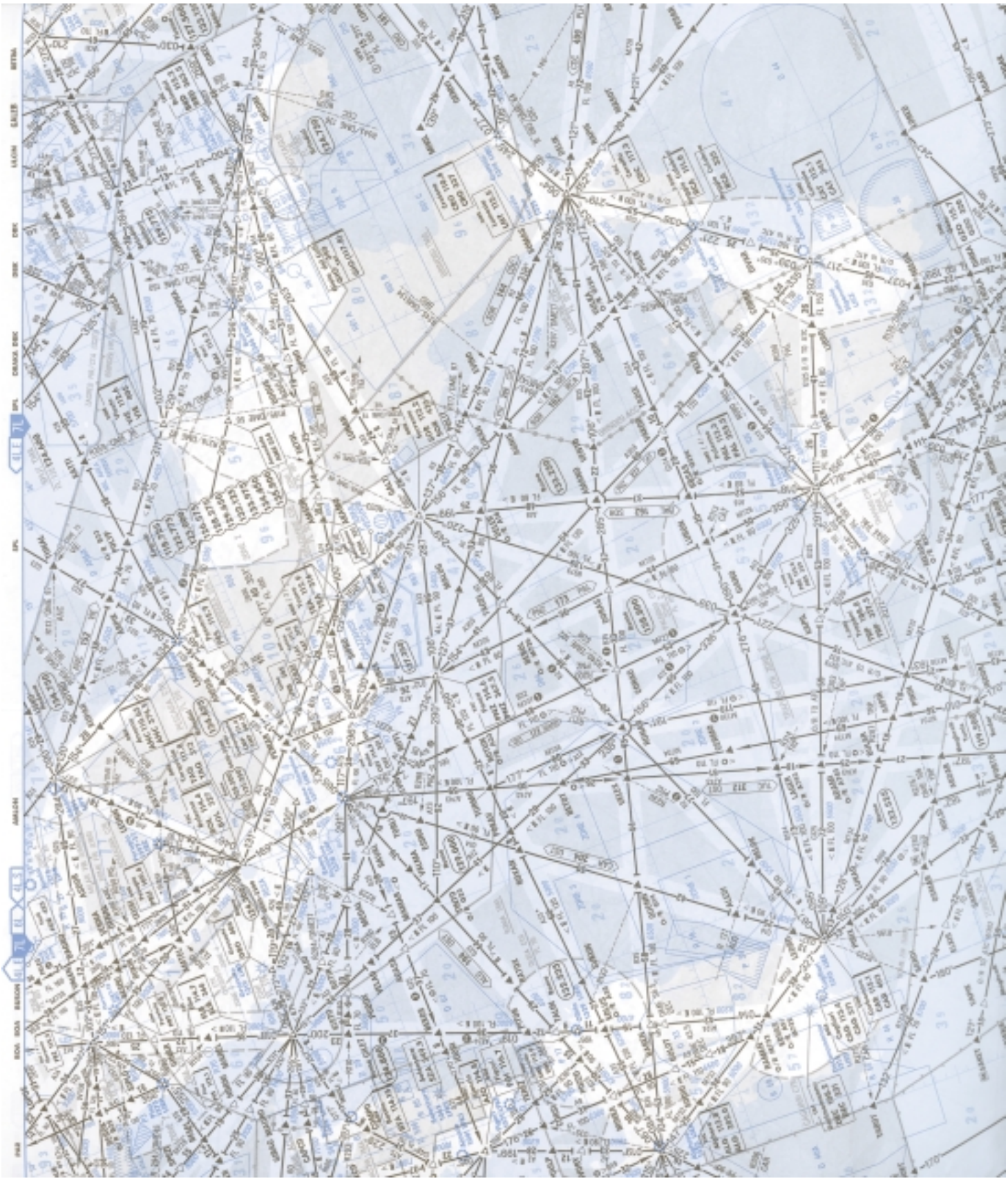
Allegato O: Convenzione relativa all'aviazione civile internazionale (Chicago 1944), artt. 1, 2, 3

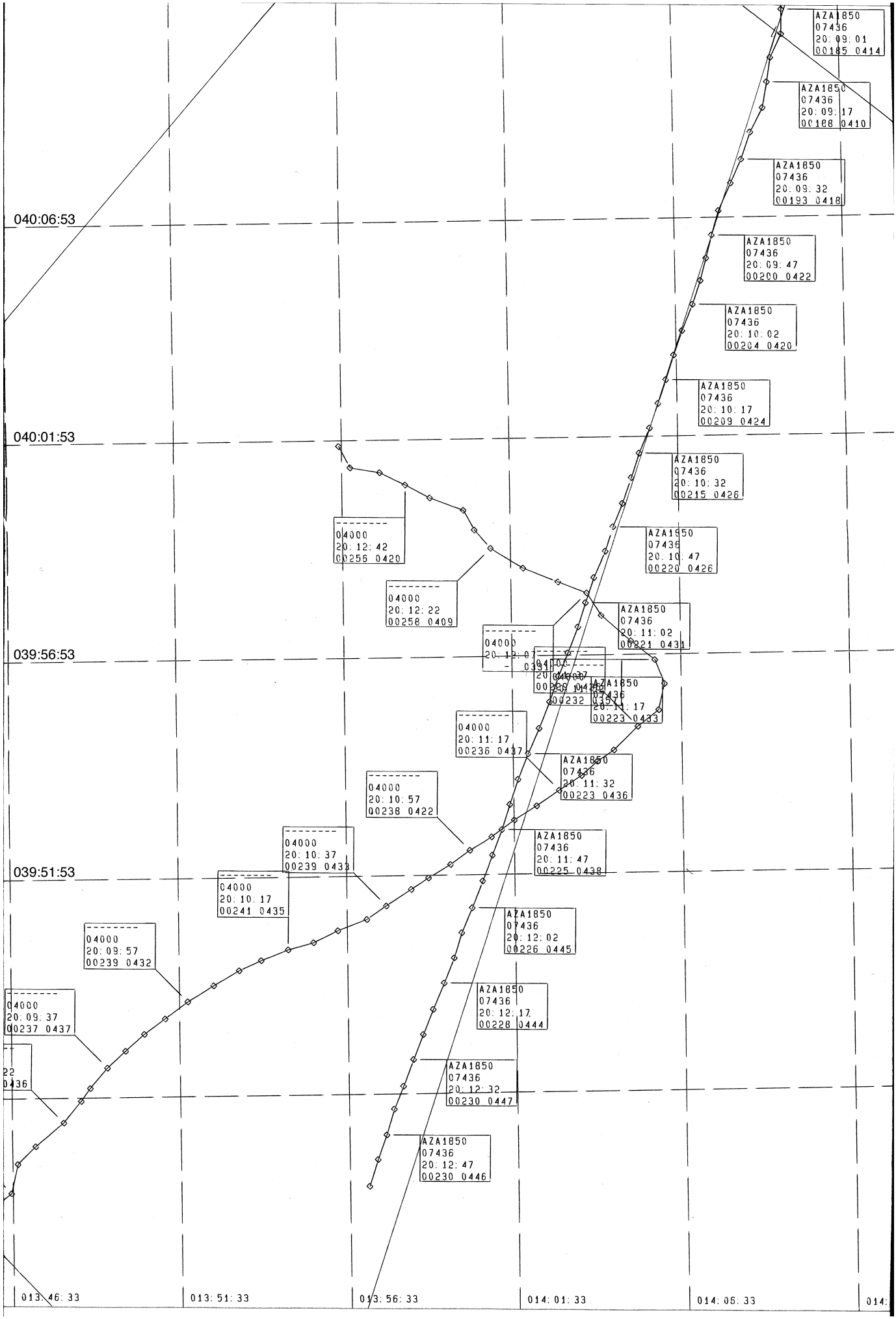
Allegato P: Annesso 11 alla Convenzione relativa all'aviazione civile internazionale (Chicago 1944), capitolo 2 (2.16, 2.17)

Allegato Q: DOC ICAO 9554-AN/932

Allegato R: DOD Flight Information Publication, *General Planning*, cap. 7 (Operations and Firing over the High Seas)

Gli allegati sopra elencati sono una copia conforme dei documenti originali in possesso dell'Agenzia nazionale per la sicurezza del volo. Nei documenti riprodotti in allegato è stato salvaguardato l'anonimato delle persone coinvolte nell'evento, in ossequio alle disposizioni del decreto legislativo 25 febbraio 1999, n. 66.

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013: 46: 33
013: 51: 33
013: 56: 33
014: 01: 33
014: 06: 33
AZA1850 07436 20: 09: 01 00185 0414
AZA1850 07436 20: 09: 17 00188 0410
AZA1850 07436 20: 09: 32 00193 0418
AZA1850 07436 20: 09: 47 00200 0422
AZA1850 07436 20: 10: 02 00204 0420
AZA1850 07436 20: 10: 17 00209 0424
AZA1850 07436 20: 10: 32 00215 0426
AZA1850 07436 20: 10: 47 00220 0426
AZA1850 07436 20: 11: 02 00221 0431
AZA1850 07436 20: 11: 17 00223 0433
AZA1850 07436 20: 11: 32 00223 0436
AZA1850 07436 20: 11: 47 00225 0438
AZA1850 07436 20: 12: 02 00226 0445
AZA1850 07436 20: 12: 17 00228 0444
AZA1850 07436 20: 12: 32 00230 0447
AZA1850 07436 20: 12: 47 00230 0446
04000 20: 12: 42 00256 0420
04000 20: 12: 22 00258 0409
04000 20: 11: 17 00236 0437
04000 20: 10: 57 00238 0422
04000 20: 10: 37 00239 0433
04000 20: 10: 17 00241 0435
04000 20: 09: 57 00239 0432
04000 20: 09: 37 00237 0437

ENAV S.p.A.
Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

LISTA TRAFFICO AZA1850 DEL 13/12/2000

TIME	X1	Y1	CH AZA1850	SEP.VER.AZA-TN64	DIST. AZA-TN64	X2	Y2	CH TN 64
200912	5622	-6185	189	4600	30,6	4539	-7819	235
200917	5617	-6221	188	4700	29,6	4565	-7793	235
200922	5611	-6259	189	4700	28,2	4606	-7758	236
200927	5593	-6295	191	4600	26,9	4631	-7726	237
200932	5580	-6335	193	4400	26,0	4644	-7707	237
200937	5565	-6370	195	4200	24,8	4669	-7677	237
200942	5548	-6411	197	4000	23,5	4695	-7652	237
200947	5538	-6447	200	3800	22,4	4722	-7627	238
200952	5530	-6481	201	3700	21,3	4752	-7604	238
200957	5522	-6514	202	3700	20,2	4785	-7579	239
201002	5511	-6549	204	3500	19,1	4822	-7555	239
201007	5496	-6588	206	3400	17,8	4859	-7533	240
201012	5484	-6624	208	3300	16,8	4891	-7518	241
201017	5473	-6660	209	3200	15,7	4930	-7502	241
201022	5462	-6695	211	3000	14,6	4967	-7491	241
201027	5450	-6731	213	2700	13,5	5002	-7473	240
201032	5435	-6768	215	2500	12,4	5044	-7456	240
201037	5424	-6804	217	2200	11,3	5072	-7436	239
201042	5411	-6842	217	2200	10,1	5108	-7412	239
201047	5398	-6877	220	1900	9,1	5133	-7395	239
201052	5387	-6913	219	2000	8,0	5165	-7375	239
201057	5371	-6952	220	1800	6,9	5193	-7354	238
201102	5359	-6989	221	1600	5,8	5225	-7334	237
201107	5348	-7025	221	1500	4,7	5258	-7309	236
201112	5334	-7063	224	1400	3,6	5290	-7288	238
201117	5320	-7098	223	1300	2,6	5323	-7265	236
201122	5308	-7135	224	1200	1,8	5355	-7243	236
201127	5293	-7174	223	2300	1,5	5378	-7222	246
201132	5277	-7211	223	700	2,0	5402	-7205	230
201137	5263	-7249	224	500	3,0	5436	-7170	229
201142	5251	-7286	226	700	4,0	5466	-7146	233
201147	5240	-7323	225	800	5,0	5474	-7107	233
201152	5226	-7361	226	600	5,8	5460	-7072	232
201157	5212	-7399	226	600	6,5	5425	-7045	232
201202	5197	-7438	226	600	7,3	5382	-7008	232
201207	5182	-7475	227	---	8,3	5361	-6975	---
201212	5171	-7512	227	3100	8,9	5319	-6959	258
201217	5157	-7549	228	3000	9,7	5268	-6939	258
201222	5141	-7588	228	3000	10,7	5220	-6910	258
201227	5127	-7625	229	2800	11,6	5196	-6883	257
201232	5113	-7662	230	2800	12,7	5180	-6854	258
201237	5099	-7701	230	2600	13,5	5131	-6836	256
201242	5086	-7735	230	2600	14,3	5095	-6817	256

AZA1850.xls

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Divisione Centro Regionale di Assistenza al Volo – Roma
Via Appia Nuova, 1491 – 00178 Roma ☎ 06 79086206 – Fax 06 79086411

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO 13/12/2000

GLI ORARI SONO UTC
FREQUENZA 127.35 MHz

200642	AZA1850	AZA1850 buonasera, reaching 150 inbound AMANO
	ACC	AZA1850 buonasera, squawk ident
	AZA1850	Arriva AZA1850
200702	ACC	AZA1850 radar contact, climb to FL 230 and proceed direct to AMANO then PAL, just for your information over AMANO there is military activity over AMANO sir
	AZA1850	AZA1850, roger grazie dell'informazione proceeding inbound AMANO then to Palermo climbing 230 if is possible, in this case, we will prefer to fly direct to RAISI PAL
	ACC	AZA1850 proceed along airway, sir
	AZA1850	Roger
200751	AZA1850	AZA1850 sorry we have some problem with the navigation sistem, is possible to have an heading to fly to AMANO?
200808	ACC	AZA1850 the magnetic track is 195, distance 50 MN now
	AZA1850	Grazie, AZA1850, do you monitor the position?
200927	ACC	AZA1850, just for your information I now see unkown traffic on your right side ... I see the altitude 238 now
	AZA1850	....sorry AZA1850, how many miles the aircraft?
	ACC	About 15 NM in front of you, sir
	AZA1850	At level 238?
	ACC	Affirm sir now 240 level
	AZA1850	Good AZA1850 continue climb to fl 230 and maintain
	ACC	Roger

200957	ACC	Do you have TCAS on board, sir?
	AZA1850	Yes affirm, but ... is not on TCAS at the moment
	ACC	Roger
201037	ACC	AZA1850 now 8 miles, 6 miles now
	AZA1850	AZA1850 roger we have on TCAS, we have on TCAS ... ok AZA1850 ... Resolution advisory, TCAS Resolution advisory...we maintain the ... the altitude 220
	ACC	Roger maintain 220 , sir
201114	AZA1850	AZA1850, now we can resume normal climb level 230
	ACC	Roger sir now clear of the traffic I see you
	AZA1850	Thank you, AZA1850
201135	ACC	Questa sera ... sono veramente incontrollabili
	AZA1850	Sì, sì, grazie
201346	ACC	AZA1850 Roma
	AZA1850	Avanti 1850
	ACC	1850 da ..... vediamo un altro traffico, mantiene attualmente 247 sulla vostra ... da sinistra verso destra. Vi toglierà la rotta a circa 20 miglia
201407	AZA1850	Ha copiato grazie AZA 1850. Faremo sapere
201529	ACC	AZA1850 il traffico ora ha invertito la rotta per cui non vi interesserà più
	AZA1850	Grazie, 1850, siamo anche pronti a scendere
	ACC	Ricevuto, in attesa per la discesa ... vi portiamo un attimo fuori dalla ... dall'esercitazione
	AZA1850	D'accordo, grazie
201643	ACC	AZA1850 per la discesa contatti Roma sulla 128.8 una buona sera
	AZA1850	128.8, AZA1850, arrivederci grazie

Alitalia — AIR SAFETY REPORT

1. TYPE OF EVENT	ASR	AIRPROX/ATC	BIRD STRIKE	WAKE TURBULENCE	TCAS RA	Authority Occurrence Number
TICK ALL THAT APPLY	☐	☐	☐	☐	☒	

2. CAPTAIN	ID NUMBER	CO-PILOT	ID NUMBER	OTHER CREW	ID NUMBER

3. DATE OF OCCURRENCE (D / M / Y)	4. TIME LOCAL (UTC)	5. FLIGHT NR	6. ROUTE (FROM / TO / DIVERTED)	7. SQUAWK
13 / 12 / 00	~20:15 DAY (NIGHT)	AZ 1850	NAP PMO	7436

8. A/C TYPE	9. REGISTRATION	10. PASSENGERS/CREW	11. FUEL JETTISONED	12. ETOPS
MD82	I-DAWY	93 / 6	— KG	YES (NO)

13. ALTITUDE	14. SPEED / MACH NR	15. A/C WEIGHT	16. TECH LOG BOOK REF
FL. 223 / FT	310 KTS IAS	— KG	YES (NO)

17. FLIGHT PHASE

TOWING → PARKED → 18. AIRPORT + STAND → PUSH-BACK → TAXI-OUT → TAKE-OFF RUN → INITIAL CLIMB → (CLIMB) → CRUISE → 19. GEOG. POSITION ~20 NM TO AMANO → DESCENT → HOLDING → APPROACH → LANDING → TAXI-IN → STAND

20. MET	21. WX ACTUAL					22. SIGNIFICANT WX MODERATE / SEVERE
IMC	WIND	VIS.	CLOUD	TEMP	QNH	RAIN / SNOW / ICING / FOG / TURBULENCE
VMC ... km	/	km	/	°C		HAIL / VOLCANIC ASH / WINDSHEAR

23. RUNWAY	24. RUNWAY STATE	25. CONFIGURATION
	DRY / WET / ICE / SNOW / SLUSH / STANDING WATER RVR ...	A/P - A/T - GEAR - FLAP - SLAT - SPOILERS ...

26. SUMMARY (CONCISE DESCRIPTION OF THE EVENT)

RESOLUTION ADVISORY PER TRAFFICO MILITARE IN DIREZIONE OPPOSTA IN DISCESA ATTRAVERSO LA NOSTRA TRAIETTORIA.

27. EVENT AND CAUSE (DETAILED DESCRIPTION OF THE EVENT AND ITS IMMEDIATE CAUSE)

DURANTE LA SALITA A FL 230, DIRETTI AL PUNTO "AMANO", ROMA ACC (127.35) CI INFORMA CHE L'AREA INTORNO AD "AMANO" È INTERESSATA DA UN'ESERCITAZIONE MILITARE, DI ATTENERSI ALLA ROTTA PREVISTA. E CHE UN TRAFFICO NON IDENTIFICATO ERA DAVANTI A NOI (~20 NM) A FL 245 CIRCA IN DIREZIONE OPPOSTA. TALE TRAFFICO INIZIA A SCENDERE CON PROFILO NON GESTANTE FINO AD UN INTERVENTO DEL TCAS.

28. ACTIONS AND RESULTS (ACTIONS TAKEN, THEIR RESULT AND ANY SUBSEQUENT EVENTS)

SU INDICAZIONE DEL R.A. TCAS CHE CHIEDE UNA RIDUZIONE DEL VARIOMETRO A NON OLTRE 3000 ft/m DI SALITA, STACCATO A/P E RIDOTTO IL VARIOMETRO A Ø. ROMA ACC CI CONSIGLIA DI FERMARCI A FL 220. ERAVAMO A FL 225 CIRCA. TRAFFICO SFIATO CIRCA 3 NM A SX A PERO MENO DI 1000 ft PIÙ ALTO, IN DISCESA.

29. OTHER INFORMATION AND SUGGESTIONS FOR PREVENTATIVE ACTION

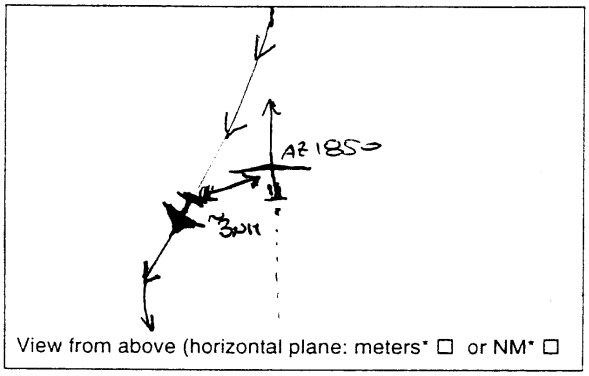
A/M IDENTIFICATO A VISTA DA SOLE LUCI ROSSE (3).

30.

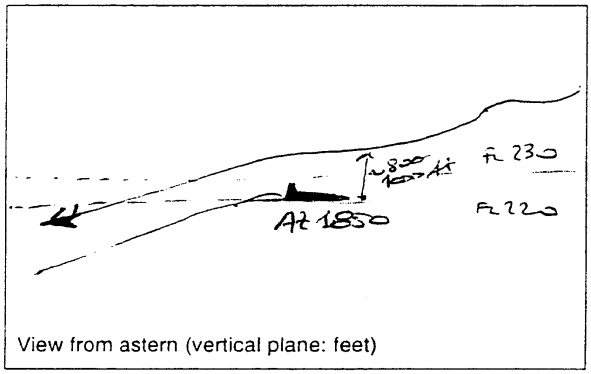
AIRPROX - ATC INCIDENT - TCAS RA - WAKE TURBULENCE - BIRD STRIKE

31. AIRPROX* / ATC INCIDENT* (*delete as applicable) and/or TCAS RA

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right assuming YOU are at the centre of each diagram. Indicate appropriate scale.



View from above (horizontal plane: meters* ☐ or NM* ☐



View from astern (vertical plane: feet)

SEVERITY OF RISK	LOW (MED) HIGH	MINIMUM VERTICAL SEPARATION	~1000 FT
AVOIDING ACTION TAKEN	(YES) NO	MINIMUM HORIZONTAL SEPARATION	~3 M/NM*
REPORTED TO ATC	ROMA ACC. UNIT	TCAS ALERT	(RA) TA / NONE
ATC INSTRUCTIONS ISSUED	STOP CLIMB AT FL 220	TYPE OF RA	"MONITOR VERT SPEED"
YOUR CALLSIGN	AZ 1850	RA FOLLOWED (YES) NO (VERTICAL DEVIATION ... FT)	
FREQUENCY IN USE	127.350	WAS TCAS ALERT (NECESSARY) USEFUL / NUISANCE	
HEADING	~200° DEG	DESCRIBE OVERLEAF:	
CLEARED ALTITUDE	FL 230	OTHER A/C TYPE MARKINGS, COLOUR, LIGHTING, CALLSIGN ETC.	

32. WAKE TURBULENCE

HEADING ... DEG TURNING LEFT / RIGHT / NO
POSITION ON GLIDESLOPE HIGH / LOW / ON
POSITION ON EXTENDED CENTRELINE LEFT / RIGHT / ON
CHANGE IN ATTITUDE PITCH ... ROLL ... YAW ... DEG
CHANGE IN ALTITUDE ... FT
WAS THERE BUFFET? YES / NO STICK SHAKE? YES / NO
WHAT MADE YOU SUSPECT WAKE TURBULENCE?

DESCRIBE ANY VERTICAL ACCELERATION

GIVE DETAILS OF PRECEDING A/C (TYPE, CALLSIGN ETC)

WERE YOU AWARE OF OTHER A/C BEFORE INCIDENT? YES/NO

33. BIRD STRIKE

TYPE OR SIZE OF BIRDS

NR SEEN	1 ☐	2-10 ☐	11-100 ☐	MORE ☐
NR STRUCK	1 ☐	2-10 ☐	11-100 ☐	MORE ☐
TIME	DAWN ☐	DAY ☐	DUSK ☐	NIGHT ☐

DESCRIBE IMPACT POINTS AND DAMAGE OVERLEAF

FILING INSTRUCTIONS

FLIGHT CREW (Before Next Flight / ASAP)
FCO → CREW BRIEFING CENTER
All Other Stations → KK
KK
FAX to SVD (039)-(06)-6563-5425
(039)-(06)-65634206
or
IMMEDIATE SITA TELEX to FCOHBAZ Priority QU
COPY TELEX to STATION OF DEPARTURE
and
ORIGINAL to → Sicurezza di Sistema di Gruppo
SVD Palazzina NPU
Aeroporto "Leonardo da Vinci"
00050 FIUMICINO

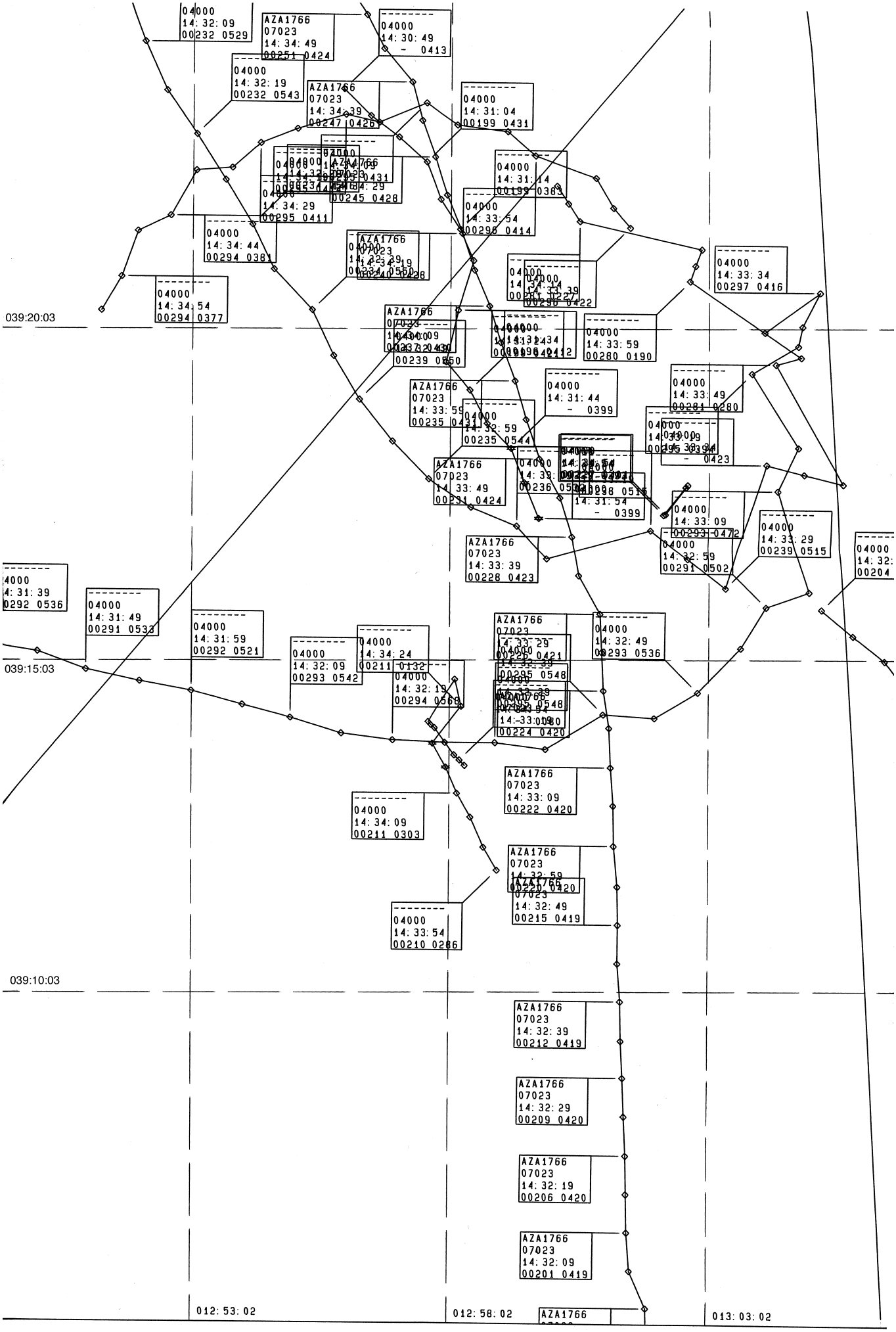
34. ID OPERATORS

☐ AZ ☒ RD ☐ XM ☐ GJ ☐ _____

All reports are distributed & analysed using the BASIS System

SIGNATURE

RANK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012: 53: 02
012: 58: 02
013: 03: 02

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Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

LISTA TRAFFICO AZA1766 DEL 14/12/2000

TIME	X1	Y1	CH AZA1766	SEP.VER.AZA-TN165	DIST.AZA-TN165	X2	Y2	CH TN 165	SEP.VER.AZA-TN312	DIST.AZA-TN312	X3	Y3	CH TN312	SEP.VER.AZA-TN142	DIST.AZA-TN142	X4	Y4	CH TN142
143034	2351	-11044	180						2600	10,6	2922	-10672	206	4500	44,2	1551	-8329	225
143039	2350	-11008	180						2600	10,6	2942	-10678	206	4500	43,3	1585	-8345	225
143044	2347	-10971	180						2600	10,6	2964	-10682	206	4500	42,7	1618	-8339	225
143049	2346	-10936	180						2600	10,7	2984	-10687	206	4500	40,8	1650	-8421	225
143054	2344	-10899	180						2600	10,8	3004	-10691	206	4500	40,1	1673	-8422	225
143059	2343	-10862	180						2600	11,0	3026	-10695	206	4500	39,1	1696	-8447	225
143104	2343	-10826	180						2600	11,2	3046	-10699	206	4500	37,0	1714	-8544	225
143109	2341	-10789	180						2600	11,4	3065	-10702	206	4500	36,1	1736	-8560	225
143114	2337	-10751	180						2600	11,5	3071	-10709	206	4600	34,1	1732	-8652	226
143119	2336	-10716	180						2600	11,8	3090	-10715	206	4800	32,6	1739	-8720	228
143124	2334	-10678	181						2500	12,4	3127	-10715	206	4600	31,2	1736	-8771	227
143129	2333	-10642	183						2300	12,8	3148	-10719	206	4500	29,9	1749	-8823	228
143134	2336	-10604	183						2300	13,1	3169	-10723	206	4500	28,5	1770	-8867	228
143139	2336	-10568	188						1800	13,6	3190	-10727	206	4000	27,3	1780	-8912	228
143144	2346	-10530	190						1600	13,9	3210	-10731	206	3800	25,9	1786	-8967	228
143149	2344	-10493	192						1400	14,4	3230	-10735	206	3800	24,7	1799	-9012	230
143154	2350	-10457	193						1300	14,8	3251	-10739	206	3900	23,4	1806	-9059	232
143159	2349	-10419	197						900	15,3	3273	-10743	206	3400	22,1	1820	-9108	231
143204	2333	-10383	188						1800	16,0	3293	-10747	206	4400	20,7	1839	-9154	232
143209	2330	-10346	201						500	16,6	3314	-10751	206	3100	19,4	1856	-9199	232
143214	2329	-10309	203						300	17,2	3334	-10754	206	2900	18,0	1877	-9246	232
143219	2328	-10272	206	-200	8,7	2508	-9743	204	0	17,6	3344	-10760	206	2600	16,7	1906	-9288	232
143224	2326	-10234	207	-200	8,0	2538	-9768	205	-100	18,2	3365	-10763	206	2600	15,4	1934	-9332	233
143229	2324	-10197	209	-300	7,4	2569	-9792	206	-300	18,8	3385	-10768	206	2500	14,0	1960	-9375	234
143234	2322	-10161	211	-400	6,8	2586	-9812	207	-500	19,4	3406	-10772	206	2300	12,8	1981	-9418	234
143239	2321	-10123	212	-700	6,3	2607	-9840	205	-600	20,0	3425	-10776	206	2200	11,4	2018	-9457	234
143244	2318	-10086	214	-900	6,1	2636	-9864	205	-800	20,7	3445	-10780	206	2000	10,1	2039	-9501	234
143249	2318	-10049	215	-1000	6,0	2666	-9888	205	-900	21,3	3465	-10784	206	2400	8,8	2064	-9543	239
143254	2317	-10012	216			2696	-9912	—	-1000	21,9	3487	-10788	206	2400	7,5	2096	-9583	240
143259	2313	-9973	220			2726	-9936	—	-1400	22,6	3506	-10793	206	1500	6,2	2131	-9619	235
143304	2312	-9934	220			2756	-9958	—	-1400	23,3	3527	-10797	206	1600	5,0	2172	-9646	236
143309	2309	-9897	222			2786	-9982	—	-1600	23,9	3546	-10801	206	1400	3,9	2216	-9664	236
143314	2307	-9859	224			2816	-10005	—	-1800	24,6	3567	-10805	206	1300	2,7	2245	-9696	237
143319	2301	-9823	224						-1800	25,4	3589	-10810	206	1400	2,5	2344	-9667	238
143324	2299	-9786	225						-1900	26,0	3609	-10814	206	1300	1,9	2380	-9695	238
143329	2297	-9749	226						-2000	26,8	3643	-10815	206	1300	1,9	2416	-9723	239
143334	2276	-9712	227						-2100	27,7	3664	-10819	206		3,3	2454	-9603	—
143339	2269	-9674	228						-2200	28,5	3684	-10823	206		3,6	2490	-9612	—
143344	2257	-9636	230						-2400	29,3	3705	-10827	206					
143349	2237	-9599	231						-2500	30,2	3726	-10832	206					
143354	2224	-9561	233						-2700	31,0	3746	-10837	206					
143359	2213	-9524	235						-2900	31,8	3767	-10841	206					
143404	2199	-9487	236						-3000	32,6	3787	-10845	206					
143409	2188	-9452	237						-3100	33,4	3808	-10849	206					
143414	2173	-9417	239						-3300	34,2	3828	-10853	206					
143419	2161	-9382	240						-3400	35,0	3848	-10857	206					
143424	2146	-9345	242						-3600	35,9	3869	-10861	206					
143429	2134	-9308	245						-3900	36,7	3891	-10865	206					
143434	2121	-9273	246						-4000	37,5	3911	-10870	206					

AZA1766.xls

ENAV S.p.A.
Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO 14/12/2000

GLI ORARI SONO UTC
FREQUENZA 128.8 MHz

142837	AZA1766	Roma buongiorno, AZA1766 is approaching 180
	ACC	Buongiorno AZA1766 squawk ident and maintain 180 sir, we have unknown traffic above you at 25 miles one o'clock
	AZA1766	Roger sir, maintain reaching and maintain 180, AZA1766
	ACC	Yes sir, is better, the "C" of the traffic is indicating 205
	AZA1766	205 confirm?
	ACC	Yes, the "C" mode of the other traffic, unknown traffic, maintain 205 and now one o'clock 15 miles
	AZA1766	Ok thank you
143023	AZA1766	Roma AZA1766
	ACC	Sì AZA1766 Roma go ahead
	AZA1766	We have the traffic in TCAS, able to climb
	ACC	Roger AZA1766 we are unable to provide separation climb to level 280
	AZA1766	Roger, climbing 280 AZA1766
143149	ACC	Ali 1766 il traffico che ..... si sta muovendo velocemente a sue ore undici, mantiene 232 sul "C"
	AZA1766	232 a nostre ore undici .....
	ACC	Sì, guardi mantenga 210 quando raggiunto, AZA1766, il traffico è a sue ore undici, 10 miglia ora
	AZA1766	Ricevuto, lo abbiamo sul TCAS
143244	ACC	1766 ora non leggiamo più il "C" 11... a sue ore 11, 3 miglia
	AZA1766	Sì adesso ne vediamo altri 2 ... comunque ci siamo

		separati spostandoci di un 5 gradi a sinistra
	ACC	Sì, noi scriveremo sull'accaduto 1766 perché ... purtroppo stiamo lavorando in condizioni che non possiamo darle separazioni ... la informiamo che un altro traffico adesso a sue ore 1, 4 miglia ma più alto, sembra
	AZA1766	Sì infatti noi ne abbiamo 2 di traffici non uno. Uno 5.600 sopra e uno 6.800 sopra
	ACC	Ok grazie
	AZA1766	Comunque noi, se possibile, intanto cominciamo a dirigere verso l'Elba
	ACC	Si guardi si sposti vada direttamente all'Elba, 1768
	AZA1766	Ok la ringrazio 1766 per l'Elba
	ACC	1766 all'Elba
143412	AZA1766	Comunque anche la 1766 ne ha avuti 2 che da destra son passati a sinistra, ... quindi insomma abbastanza complessa la cosa
	ACC	Sì guardi noi ... praticamente stiamo lavorando anche con il radar pieno di tracce ... è difficile anche lavorare
	AZA1766	Infatti, comunque faremo anche noi un rapporto, grazie
144219	ACC	AZA1766 contact radar 129.0, ciao
	AZA1766	129.0, ciao, 1766.

Gruppo Alitalia

AIR SAFETY REPORT

1. TYPE OF EVENT: ASR [X] AIRPROX/ATC [ ] BIRD STRIKE [ ] WAKE TURBULENCE [ ] TCAS RA [ ] — TICK ALL THAT APPLY

Authority Occurrence Number:

2. CAPTAIN ID NUMBER	CO-PILOT ID NUMBER	OTHER CREW ID NUMBER

3. DATE OF OCCURRENCE D M Y	4. TIME LOCAL/UTC DAY / ~~NIGHT~~	5. FLIGHT NR	6. ROUTE FROM ... TO ... DIVERTED	7. SQUAWK
14 / 12 / 00		1766	SAC ... MXP ...	7023

8. A/C TYPE	9. REGISTRATION	10. PASSENGERS/CREW	11. FUEL JETTISONED	12. ETOPS
MD 80	I DATK	62 / 7	KG	~~YES~~ / NO

13. ALTITUDE	14. SPEED / MACH NR	15. A/C WEIGHT	16. TECH LOG BOOK REF
FL. 200 / 2000 FT	315	507 KG	~~YES~~ / NO

17. FLIGHT PHASE

TOWING → PARKED → 18. AIRPORT + STAND → PUSH-BACK → TAXI-OUT → TAKE-OFF RUN → INITIAL CLIMB

CLIMB → CRUISE → 19. GEOG. POSITION → DESCENT → HOLDING → APPROACH → LANDING → TAXI-IN → STAND

20. MET	21. WX ACTUAL	22. SIGNIFICANT WX
IMC VMC 30 ... km	WIND VIS. CLOUD TEMP QNH 300 / 40 km / °C +22	MODERATE / SEVERE RAIN / SNOW / ICING / FOG / TURBULENCE HAIL / VOLCANIC ASH / WINDSHEAR
23. RUNWAY	**24. RUNWAY STATE** DRY / WET / ICE / SNOW / SLUSH / STANDING WATER RVR	**25. CONFIGURATION** A/P - A/T - GEAR - FLAP - SLAT - SPOILERS ... ...

26. SUMMARY (CONCISE DESCRIPTION OF THE EVENT)

CONFLITTO DI TRAFFICO.

27. EVENT AND CAUSE (DETAILED DESCRIPTION OF THE EVENT AND ITS IMMEDIATE CAUSE) 14:30Z

AFL200 VENIAMO INFORMATI DALLA 128.8 IN ROTTA x PNZ DI AVERE A NOSTRE ORE 13 UN TRATTO SUP. DI = 2500 FT. DA QUESTO MOMENTO IN POI I TRAFFICI DI SEGNALANO TUTTI VISIBILI SUL TCAS. SI RITENEVA PIÙ SICURO ACCOSTARE DI 10° LEFT, NON SI SONO INTRAPRESE ALTRE AZIONI.

28. ACTIONS AND RESULTS (ACTIONS TAKEN, THEIR RESULT AND ANY SUBSEQUENT EVENTS)

29. OTHER INFORMATION AND SUGGESTIONS FOR PREVENTATIVE ACTION

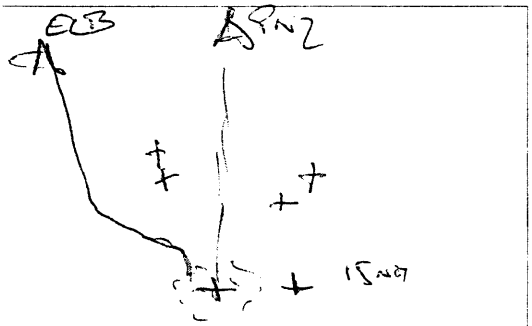
IL RADAR 128.8 CI FACCIA NOTARE LA DIFFICOLTÀ NELLA GESTIONE DELLE SEPARAZIONI, ESSENDO TRAFFICI MILITARI NON PRESENTI VISIVAMENTE COLLEGATI E CHE AVREBBERO PROVVEDUTO ALLA SEGNALAZIONE

30.

AIRPROX - ATC INCIDENT - TCAS RA - WAKE TURBULENCE - BIRD STRIKE

31. AIRPROX* / ATC INCIDENT* (*delete as applicable) and/or TCAS RA

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right assuming YOU are at the centre of each diagram. Indicate appropriate scale.



View from above (horizontal plane: meters* ☐ or NM* ☐

View from astern (vertical plane: feet)

SEVERITY OF RISK LOW / MED / HIGH
AVOIDING ACTION TAKEN YES / NO
REPORTED TO ATC ... ... UNIT
ATC INSTRUCTIONS ISSUED ... ...
YOUR CALLSIGN ... ...
FREQUENCY IN USE ... ...
HEADING ... ... DEG
CLEARED ALTITUDE ... ...

MINIMUM VERTICAL SEPARATION ... ... FT
MINIMUM HORIZONTAL SEPARATION ... ... M/NM*
TCAS ALERT RA / TA / NONE
TYPE OF RA ... ...
RA FOLLOWEDYES / NO (VERTICAL DEVIATION ... ... FT)
WAS TCAS ALERT NECESSARY / USEFUL / NUISANCE
DESCRIBE OVERLEAF:
OTHER A/C TYPE MARKINGS, COLOUR, LIGHTING, CALLSIGN ETC.

32. WAKE TURBULENCE

HEADING ... ... DEGTURNING LEFT / RIGHT / NO
POSITION ON GLIDESLOPE HIGH / LOW / ON
POSITION ON EXTENDED CENTRELINELEFT / RIGHT / ON
CHANGE IN ATTITUDE PITCH ... ... ROLL ... ... YAW ... ... DEG
CHANGE IN ALTITUDE ... ... FT
WAS THERE BUFFET?YES / NO STICK SHAKE? YES / NO
WHAT MADE YOU SUSPECT WAKE TURBULENCE?

DESCRIBE ANY VERTICAL ACCELERATION

GIVE DETAILS OF PRECEDING A/C (TYPE, CALLSIGN ETC)

WERE YOU AWARE OF OTHER A/C BEFORE INCIDENT?YES/NO

33. BIRD STRIKE

TYPE OR SIZE OF BIRDS
NR SEEN 1 ☐ 2-10 ☐ 11-100 ☐ MORE ☐
NR STRUCK 1 ☐ 2-10 ☐ 11-100 ☐ MORE ☐
TIME DAWN ☐ DAY ☐ DUSK ☐ NIGHT ☐
DESCRIBE IMPACT POINTS AND DAMAGE OVERLEAF

FILING INSTRUCTIONS

FLIGHT CREW (Before Next Flight / ASAP)
FCO → CREW BRIEFING CENTER
All Other Stations → KK
KK
FAX to SVT (039)-(06)-6563-8316
(039)-(06)-6563-8354
or
IMMEDIATE SITA TELEX to FCOHBAZ Priority QU
COPY TELEX to STATION OF DEPARTURE
and
ORIGINAL to → Sicurezza di Sistema di Gruppo
SVT Palazzina NPU
Aeroporto "Leonardo da Vinci"
00050 FIUMICINO

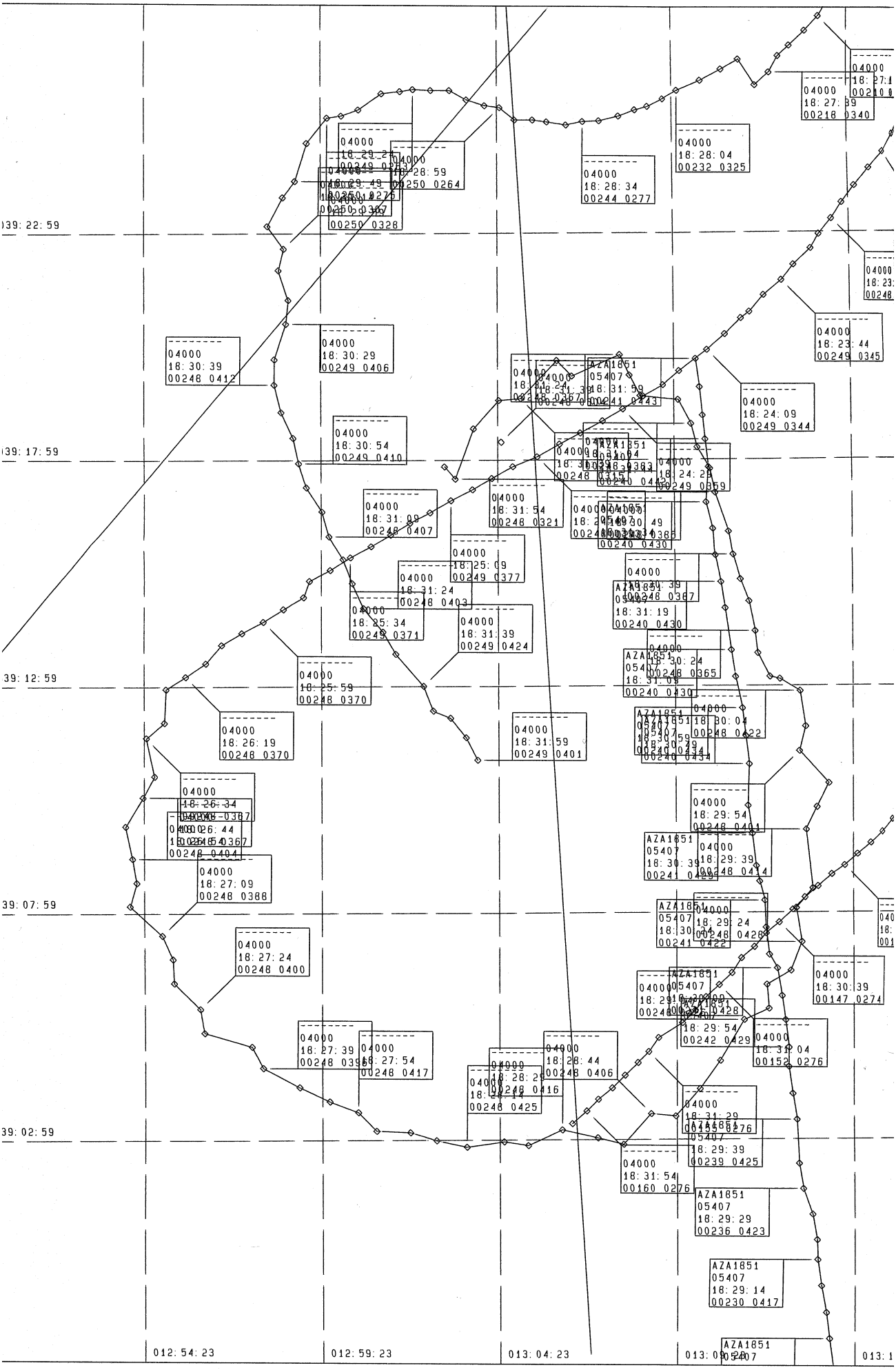
34. ID OPERATORS

☐ AZ ☒ RD ☐ XM ☐ GJ ☐ _____

All reports are distributed & analysed using the BASIS System

SIGNATURE

RANK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013: 04: 23
013: 09: 23
013: 1
AZA1851
05407

ENAV S.p.A.
Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

LISTA TRAFFICO AZA 1851 DEL 14/12/2000

TIME	X1	Y1	CH **AZA1851**	SEP.VER.AZA-TN556	DIST. AZA-TN556	X2	Y2	CH TN 556	SEP.VER.AZA-TN105	DIST. AZA-TN105	X3	Y3	CH TN 105	SEP.VER.AZA-TN89	DIST. AZA-TN89	X4	Y4	CH TN 89	SEP.VER.AZA-TN528	DIST. AZA-TN528	X5	Y5	CH TN 528
182704	3086	-11689	186	1700	43,7	2973	-8894	203	11100	72,1	2533	-7108	297	6200	28,7	1959	-10239	248	100	42,1	5234	-10067	187
182709	3058	-11651	188	1800	42,8	2951	-8914	206	11300	71,9	2509	-7083	301	6000	27,0	2004	-10280	248	-200	42,1	5250	-10079	186
182714	3055	-11618	190	1800	42,0	2939	-8935	208	11300	71,8	2485	-7061	303	5800	26,0	2019	-10313	248	-400	41,9	5264	-10098	186
182719	3050	-11582	192	1800	40,8	2915	-8974	210	11400	71,6	2456	-7038	306	5600	25,1	2021	-10347	248	-600	41,8	5281	-10110	186
182724	3045	-11544	194	1700	39,9	2896	-8995	211	11900	71,4	2427	-7015	313	5400	23,8	2058	-10383	248	-800	41,6	5296	-10125	186
182729	3040	-11509	195	1600	39,0	2874	-9016	211	11700	71,4	2397	-6987	312	5300	22,9	2064	-10417	248	-900	41,5	5312	-10138	186
182734	3031	-11479	199	1900	38,3	2858	-9031	218	11400	71,3	2367	-6962	313	4900	21,5	2130	-10436	248	-1300	41,5	5329	-10150	186
182739	3025	-11440	201	1700	37,4	2846	-9054	218	11200	71,2	2340	-6937	313	4700	20,5	2146	-10466	248	-1500	41,4	5343	-10163	186
182744	3019	-11407	203	1900	36,6	2826	-9072	222	11100	70,9	2310	-6923	314	4500	19,2	2197	-10493	248	-1700	41,3	5359	-10176	186
182749	3012	-11372	204	2100	36,6	2802	-9036	225	10900	70,8	2283	-6903	313	4400	18,1	2239	-10513	248	-1800	41,3	5375	-10189	186
182754	3009	-11336	205	2200	35,9	2778	-9050	227	10800	70,2	2262	-6903	313	4300	17,0	2279	-10528	248	-1900	41,2	5388	-10201	186
182759	3003	-11302	206	2500	35,2	2749	-9066	231	10600	70,1	2232	-6883	312	4200	16,0	2305	-10554	248	-2000	41,2	5404	-10213	186
182804	2997	-11264	209	2300	34,4	2717	-9080	232	10400	69,5	2201	-6886	313	3900	15,0	2352	-10556	248	-2400	41,1	5417	-10226	185
182809	2994	-11224	210	2400	33,6	2697	-9092	234	10400	69,2	2164	-6876	314	3800	14,0	2389	-10567	248	-2500	41,1	5433	-10239	185
182814	2988	-11188	211	2600	32,9	2674	-9103	237	10300	68,8	2137	-6868	314	3700	12,9	2431	-10576	248	-2600	41,1	5449	-10251	185
182819	2985	-11146	214	2600	32,3	2656	-9108	240	10000	68,3	2108	-6866	314	3400	12,0	2483	-10568	248	-2900	41,1	5462	-10263	185
182824	2979	-11111	215	2900	31,6	2633	-9117	244	9900	67,7	2068	-6878	314	3300	11,1	2517	-10573	248	-3000	41,2	5477	-10276	185
182829	2969	-11065	217	2800	30,9	2606	-9124	245	9800	66,7	2037	-6900	315	3100	10,2	2564	-10551	248	-3200	41,3	5493	-10289	185
182834	2963	-11029	220	2400	30,3	2583	-9125	244	9400	66,1	2005	-6909	314	2800	9,1	2614	-10562	248	-3500	41,3	5507	-10301	185
182839	2959	-10990	220	2800	29,7	2560	-9130	248	9400	65,5	1975	-6913	314	2800	8,1	2650	-10571	248	-3500	41,4	5522	-10313	185
182844	2954	-10953	222	2700	29,3	2533	-9126	249	9200	64,9	1947	-6925	314	2600	7,8	2688	-10527	248	-3700	41,6	5538	-10325	185
182849	2953	-10916	223	2600	28,8	2513	-9123	249	9100	64,2	1917	-6937	314	2500	7,0	2723	-10530	248	-3800	41,6	5552	-10338	185
182854	2947	-10882	225	2500	28,4	2488	-9123	250	8900	63,5	1892	-6957	314	2300	6,8	2757	-10491	248	-4000	41,8	5567	-10350	185
182859	2941	-10844	226	2400	28,1	2467	-9106	250	8800	62,7	1869	-6975	314	2200	6,6	2785	-10451	248	-4200	41,9	5581	-10362	184
182904	2936	-10807	228	2100	27,7	2446	-9103	249	8500	62,0	1846	-6994	313	2000	6,7	2818	-10393	248	-4400	42,1	5596	-10375	184
182909	2929	-10769	229	2000	27,3	2421	-9095	249	8400	61,2	1821	-7013	313	1900	6,2	2852	-10377	248	-4500	42,3	5612	-10387	184
182914	2923	-10732	230	1800	27,1	2397	-9082	248	8300	60,5	1794	-7025	313	1800	6,2	2849	-10343	248	-4500	42,6	5626	-10398	185
182919	2922	-10704	233	1600	26,8	2371	-9082	249	7800	58,9	1801	-7108	311	1500	6,0	2882	-10323	248	-4800	42,7	5641	-10411	185
182924	2915	-10668	234	1500	26,3	2346	-9081	249	7600	58,1	1779	-7130	310	1400	6,0	2897	-10283	248	-4800	43,0	5657	-10422	186
182929	2902	-10632	236	1400	25,8	2328	-9084	250	7500	56,7	1806	-7170	311	1200	6,2	2889	-10235	248	-5000	43,4	5671	-10435	186
182934	2896	-10596	237	1300	25,3	2302	-9087	250	7400	55,9	1792	-7196	311	1100	6,1	2912	-10207	248	-5100	43,7	5687	-10447	186

182939	2892	-10534	239	1100	24,3	2270	-9110	250	7000	53,9	1835	-7248	309	900	6,4	2902	-10124	248	-5300	43,9	5701	-10459	186
182944	2886	-10497	240	1000	23,7	2246	-9119	250	6900	52,9	1841	-7277	309	800	6,3	2917	-10092	248	-5400	44,2	5716	-10472	186
182949	2880	-10459	240	1000	23,3	2226	-9122	250	6900	51,8	1850	-7306	309	800	6,3	2933	-10058	248	-5400	44,5	5731	-10484	186
182954	2880	-10432	242	800	22,6	2198	-9158	250	6700	50,6	1880	-7354	309	600	6,5	2892	-10013	248	-5600	44,8	5747	-10494	186
182959	2875	-10393	243	700	21,4	2182	-9212	250	6700	49,4	1906	-7382	310	500	6,5	2900	-9978	248	-5700	45,1	5762	-10507	186
183004	2870	-10359	245	500	20,7	2165	-9235	250	6500	48,2	1946	-7418	310	300	6,7	2892	-9928	248	-5900	45,5	5777	-10519	186
183009	2863	-10320	241	900	19,8	2144	-9276	250	6900	46,7	1970	-7468	310	700	6,4	2864	-9911	248	-5500	45,9	5792	-10525	186
183014	2852	-10301	241	900	18,8	2167	-9308	250	6400	45,4	2031	-7513	305	700	6,1	2850	-9908	248	-5500	46,3	5807	-10538	186
183019	2847	-10263	241	900	18,0	2160	-9338	250	6300	43,9	2059	-7565	304	700	6,1	2833	-9875	248	-5500	46,7	5823	-10549	186
183024	2845	-10225	241	800	16,9	2174	-9380	249	6200	42,7	2081	-7604	303	700	6,0	2829	-9844	248	-5500	47,1	5840	-10553	186
183029	2838	-10198	240	900	16,1	2171	-9414	249	6100	41,1	2164	-7657	301	800	6,2	2820	-9802	248	-5400	47,5	5856	-10564	186
183034	2833	-10176	241	700	15,4	2155	-9464	248	5900	40,0	2196	-7698	300	700	6,3	2808	-9771	248	-5500	47,8	5864	-10570	186
183039	2827	-10130	241	700	14,4	2155	-9500	248	5400	38,5	2229	-7737	295	700	6,2	2798	-9736	248	-5500	48,3	5883	-10580	186
183044	2821	-10091	240	800	13,4	2165	-9539	248	5400	37,2	2260	-7778	294	800	6,1	2791	-9703	248	-5400	48,8	5906	-10591	186
183049	2822	-10032	240	900	12,3	2182	-9575	249	5300	35,6	2292	-7819	293	800	6,1	2772	-9648	248	-5400	49,3	5926	-10600	186
183054	2817	-9992	240	900	11,5	2190	-9611	249	5100	34,2	2324	-7859	291	800	6,0	2765	-9614	248	-5400	49,8	5942	-10612	186
183059	2812	-9953	240	900	10,7	2201	-9645	249	5000	32,9	2356	-7900	290	800	5,9	2747	-9584	248	-5500	50,3	5958	-10621	185
183104	2802	-9909	240	800	9,7	2223	-9679	248	4000	21,6	3873	-9033	200	800	5,7	2738	-9551	248	-5500	50,9	5980	-10625	185
183109	2796	-9871	240	800	9,1	2233	-9714	248	4000	21,8	3906	-9029	200	800	5,7	2720	-9517	248	-5500	51,4	5996	-10635	185
183114	2787	-9812	240	800	8,4	2253	-9747	248	4000	22,0	3899	-8948	200	800	5,1	2666	-9512	248	-5400	52,1	6016	-10637	186
183119	2781	-9775	240	800	8,0	2266	-9781	248	4000	22,3	3928	-8929	200	800	5,0	2651	-9483	248	-5400	52,7	6043	-10625	186
183124	2773	-9737	240	800	7,8	2282	-9816	248	4000	22,4	3941	-8910	200	800	4,9	2637	-9454	248	-5400	53,2	6061	-10631	186
183129	2769	-9699	240	900	7,5	2310	-9849	249	4000	22,6	3950	-8865	200	800	4,6	2570	-9485	248	-5400	53,7	6084	-10598	186
183134	2760	-9662	240	900	7,6	2328	-9880	249	4000	22,6	3947	-8832	200	800	4,5	2549	-9463	248	-5400	54,2	6102	-10599	186
183139	2763	-9612	240	900	7,9	2367	-9925	249	4000	22,4	3949	-8806	200	800	4,4	2499	-9517	248	-5400	54,6	6119	-10586	186
183144	2758	-9573	240	900	8,4	2381	-9960	249	4000	22,4	3941	-8768	200	500	4,6	2469	-9520	245	-5300	54,9	6130	-10557	187
183149	2754	-9539	241	800	8,7	2405	-9970	249	4100	22,9	3990	-8750	200	700	5,0	2434	-9560	248	-5400	55,3	6146	-10549	187
183154	2750	-9499	241	800	9,3	2427	-9997	249	4100	22,4	3948	-8712	200	700	5,7	2409	-9631	248	-5400	55,6	6156	-10530	187
183159	2744	-9459	241	800	10,1	2443	-10029	249	4100	22,4	3955	-8687	200	700	6,0	2394	-9614	248	-5400	55,7	6153	-10496	187

ENAV S.p.A.

Divisione Centro Regionale di Assistenza al Volo – Roma
Via Appia Nuova, 1491 – 00178 Roma ☎ 06 79086206 – Fax 06 79086411

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO 14/12/2000

GLI ORARI SONO UTC
FREQUENZA 128.8 MHz

181813	AZA1809	Buona sera Roma, AZA1809 passing 85 climbing 180 to Ponza
	ACC	Buona sera to you ALITALIA 1809, squawk ident on 7447
	AZA1809	Ident coming down, on 7447
181836	ACC	AZA1809 Roma radar contact. Proceed to PNZ and continue climbing to FL 280
	AZA1809	Climbing 280 to PNZ, AZA1809. Come stiamo a traffici adesso ... sconosciuti?
	ACC	Guardi al momento sembra che si siano spostati verso est, quindi siano andati verso la zona di Sorrento quindi al momento lungo la rotta non dovrebbe incontrare sconosciuti
	AZA1809	Grazie
182319	ACC	AZA1809 Roma
	AZA1809	Avanti
	ACC	Sì.....al momento vediamo un traffico a 250 che mantiene una prua approssimativa di 200, 30 miglia a sue ore 2
	AZA1809	Copiato, grazie
182405	AZA1851	Buona sera Roma, AZA1851 climbing level 160 inbound BEROL
	ACC	AZA1861, correction AZA1851, buona sera squawk ident
	AZA1851	Ident 1851
182423	ACC	AZA1809 il traffico è ora a 20 miglia mantiene 250
	AZA1809	Va bene noi stiamo passando 240, lui è a 250, confermate?

	ACC	Sì, noi leggiamo, supponiamo mantenga 250 non conosciamo le sue intenzioni e neanche l'attendibilità eventualmente del "C" del modo "C"
	AZA1809	Va bene comunque sempre prua 200?
	ACC	No, al momento credo che sia una 240 stia procedendo verso ovest, suppongo
	AZA1809	Adesso ci appare qualcosa sul TCAS a 15 miglia nostre ore una, non so se è lui o un altro traffico, vediamo 246 la quota, 249 anzi
	ACC	Sì è lui, adesso 12 miglia
2510	AZA1809	Sì confermiamo, lo abbiamo in vista sul TCAS e lo vediamo anche ci sta attraversando adesso, con le luci, davanti a noi
	ACC	AZA1851 radar contact, continue climb to FL 260
	AZA1851	FL 260, AZA1851
182608	AZA1809	Ci sta sfilando alla nostra sinistra AZA1851, 1600 ft sotto di noi
	ACC	E' la 1809 che chiama, conferma?
	AZA1809	Sì, scusate. Abbiamo fatto ieri la 1851, la 1809
	ACC	Sì, no perché il collega della 1851 è dietro di lei, probabilmente tra una decina di minuti avrà lo stesso problema
	AZA1809	Sì il traffico era a 250, e....ha le luci accese ma non si vede niente fuori
182639	ACC	AZA1851, Roma
	AZA1851	È in ascolto
	ACC	Sì, per lei il traffico sconosciuto al momento è 28 miglia a sue ore 11 circa, mantiene 250 ed al momento supponiamo stia effettuando una virata a sinistra prendendo una prua diciamo.....est sud-est. Mantiene 250 a 25 miglia da lei al momento. Mi faccia sapere le intenzioni se vuole fermarsi a 240
	AZA1851	Si ferma a 240 la 1851. Noi vediamo 2 traffici, uno a ore 11 e uno a ore 10 circa
	ACC	Si può darsi che siano 2 in coppia. Noi al momento supponiamo che sia uno soltanto.
	AZA1851	No no sono lontani tra loro. Non so quale dei due è quello che ci interessa.
182728	AZA1809	... e per informazioni noi abbiamo un altro traffico a nostre ... a 2 ... il livello è, e questa è la 1809 che parla, il livello 229 in salita a nostre ore 3 e ... sono ... 2

		velivoli penso. Adesso si stanno incrociando, sono qui sotto di noi
	ACC	Sì, anche noi vediamo un 234, a sue ore 3 al momento
	AZA1809	Sì, confermiamo saranno un 7/8 miglia da noi e.....ci stanno passando in ore 4 adesso
	ACC	AZA1851 lei ha in vista il suo traffico al momento a ore 11, 250 che mantiene?
	AZA1851	Affermativo
182844	AZA1851	Roma la 1851 a Napoli sporgeremo denuncia all'autorità di Polizia
	ACC	Ricevuto
182930	ACC	AZA1809 Roma
	AZA1809	Avanti
	ACC	Sì, al momento altro traffico per lei sconosciuto a sue ore 11, 15 miglia supponiamo mantenga 310 ma ... sono più di un traffico e ... non riusciamo a distinguere bene la quota
	AZA1809	Sì guardi lo vediamo sul TCAS. La quota del TCAS è 310 seguito da un altro traffico 304 ... in discesa
	ACC	Roger
	AZA1809	Stanno scendendo a 300 di livello adesso
183225	ACC	AZA1809 Roma
	AZA1809	Avanti
	ACC	Sì la informo che noi faremo ... segnaleremo l'accaduto e ... alle autorità competenti e ... se lei vuole può fare altrettanto e può contattare il collega sulla 127.35 buona sera
	AZA1809	27.35 grazie lo faremo anche noi....i traffici li abbiamo visti che ci sfilavano e ... e sulla nostra destra, grazie mille di tutto. 27.35
	ACC	Salve
183631	ACC	AZA1851 Roma ... faremo anche noi ... inoltreremo anche noi rapporto, contatti 27.35. salute.
	AZA1851	27.35 saluti a voi. Grazie mille, 1851.

Gruppo Alitalia

AIR SAFETY REPORT

1. TYPE OF EVENT — ASR ☑ AIRPROX/ATC ☑ BIRD STRIKE ☐ WAKE TURBULENCE ☐ TCAS RA ☐ (TICK ALL THAT APPLY)

Authority Occurrence Number

2. CAPTAIN ID NUMBER	CO-PILOT ID NUMBER	OTHER CREW ID NUMBER

3. DATE OF OCCURRENCE (D/M/Y)	4. TIME LOCAL/UTC	5. FLIGHT NR	6. ROUTE (FROM / TO / DIVERTED)	7. SQUAWK
14 / 12 / 00	DAY / (NIGHT)	AZ 1857	PMO / NAP /	5407

8. A/C TYPE	9. REGISTRATION	10. PASSENGERS/CREW	11. FUEL JETTISONED	12. ETOPS
MD 80	I-DANH	55 / 6	— KG	YES (NO)

13. ALTITUDE	14. SPEED / MACH NR	15. A/C WEIGHT	16. TECH LOG BOOK REF
FL. 240 / FT	300	KG	YES (NO)

17. FLIGHT PHASE

TOWING → PARKED → 18. AIRPORT + STAND → PUSH-BACK → TAXI-OUT → TAKE-OFF RUN → INITIAL CLIMB

(CLIMB) → (CRUISE) → 19. GEOG. POSITION → DESCENT → HOLDING → APPROACH → LANDING → TAXI-IN → STAND

20. MET	21. WX ACTUAL	22. SIGNIFICANT WX
IMC VMC ... ...km	WIND VIS. CLOUD TEMP QNH / km / °C	MODERATE / SEVERE RAIN / SNOW / ICING / FOG / TURBULENCE HAIL / VOLCANIC ASH / WINDSHEAR
23. RUNWAY	**24. RUNWAY STATE** DRY / WET / ICE / SNOW / SLUSH / STANDING WATER RVR	**25. CONFIGURATION** A/P - A/T - GEAR - FLAP - SLAT - SPOILERS ....

26. SUMMARY (CONCISE DESCRIPTION OF THE EVENT)

TRAFFICO SCONOSCIUTO IN AEROVIA

27. EVENT AND CAUSE (DETAILED DESCRIPTION OF THE EVENT AND ITS IMMEDIATE CAUSE)

L'ENTE ATC SEGNALA "PRESENZA DI TRAFFICO SCONOSCIUTO, PROBABILMENTE MILITARE" A TUTTI I LIVELLI, LUNGO LA ROTTA PIANIFICATA. CAMBIATA ROTTA, CI VIENE RIPORTATA LA PRESENZA DI UN TRAFFICO CIRCA 10 NM AVANTI A NOI, A FL 250. NOI ERAVAMO IN SALITA VERSO FL 260.

28. ACTIONS AND RESULTS (ACTIONS TAKEN, THEIR RESULT AND ANY SUBSEQUENT EVENTS)

FERMATA LA SALITA A FL 240.
LA TRACCIA SUL TCAS DISPLAY SI E' AVVICINATA FINO A 5 NM, E 400 FT DI DIFFERENZA DI QUOTA

29. OTHER INFORMATION AND SUGGESTIONS FOR PREVENTATIVE ACTION

ATC HA AFFERMATO DI NON POTER ASSICURARE LA SEPARAZIONE DA QUEL TRAFFICO
EPISODI SIMILI SI RIPETONO DA IERI!

30.

AIRPROX - ATC INCIDENT - TCAS RA - WAKE TURBULENCE - BIRD STRIKE

31. AIRPROX* / ATC INCIDENT* (*delete as applicable) and/or TCAS RA

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right assuming YOU are at the centre of each diagram. Indicate appropriate scale.

View from above (horizontal plane: meters* ☐ or NM* ☐

View from astern (vertical plane: feet)

SEVERITY OF RISK	LOW / MED / (HIGH)
AVOIDING ACTION TAKEN	YES / NO
REPORTED TO ATC	[illegible] UNIT
ATC INSTRUCTIONS ISSUED	YES
YOUR CALLSIGN	AF 1851
FREQUENCY IN USE	
HEADING	... DEG
CLEARED ALTITUDE	FL 260
MINIMUM VERTICAL SEPARATION	700 FT
MINIMUM HORIZONTAL SEPARATION	5 M/NM*
TCAS ALERT	RA / TA / (NONE)
TYPE OF RA	
RA FOLLOWED	YES / (NO) (VERTICAL DEVIATION ... FT)
WAS TCAS ALERT NECESSARY / USEFUL / NUISANCE	
DESCRIBE OVERLEAF:	
OTHER A/C TYPE MARKINGS, COLOUR, LIGHTING, CALLSIGN ETC.	

32. WAKE TURBULENCE

HEADING ... DEGTURNING LEFT / RIGHT / NO
POSITION ON GLIDESLOPE HIGH / LOW / ON
POSITION ON EXTENDED CENTRELINE LEFT / RIGHT / ON
CHANGE IN ATTITUDE PITCH ... ROLL ... YAW ... DEG
CHANGE IN ALTITUDE ... FT
WAS THERE BUFFET? YES / NO STICK SHAKE? YES / NO
WHAT MADE YOU SUSPECT WAKE TURBULENCE?

DESCRIBE ANY VERTICAL ACCELERATION

GIVE DETAILS OF PRECEDING A/C (TYPE, CALLSIGN ETC)

WERE YOU AWARE OF OTHER A/C BEFORE INCIDENT? YES/NO

33. BIRD STRIKE

TYPE OR SIZE OF BIRDS
NR SEEN 1 ☐ 2-10 ☐ 11-100 ☐ MORE ☐
NR STRUCK 1 ☐ 2-10 ☐ 11-100 ☐ MORE ☐
TIME DAWN ☐ DAY ☐ DUSK ☐ NIGHT ☐
DESCRIBE IMPACT POINTS AND DAMAGE OVERLEAF

FILING INSTRUCTIONS

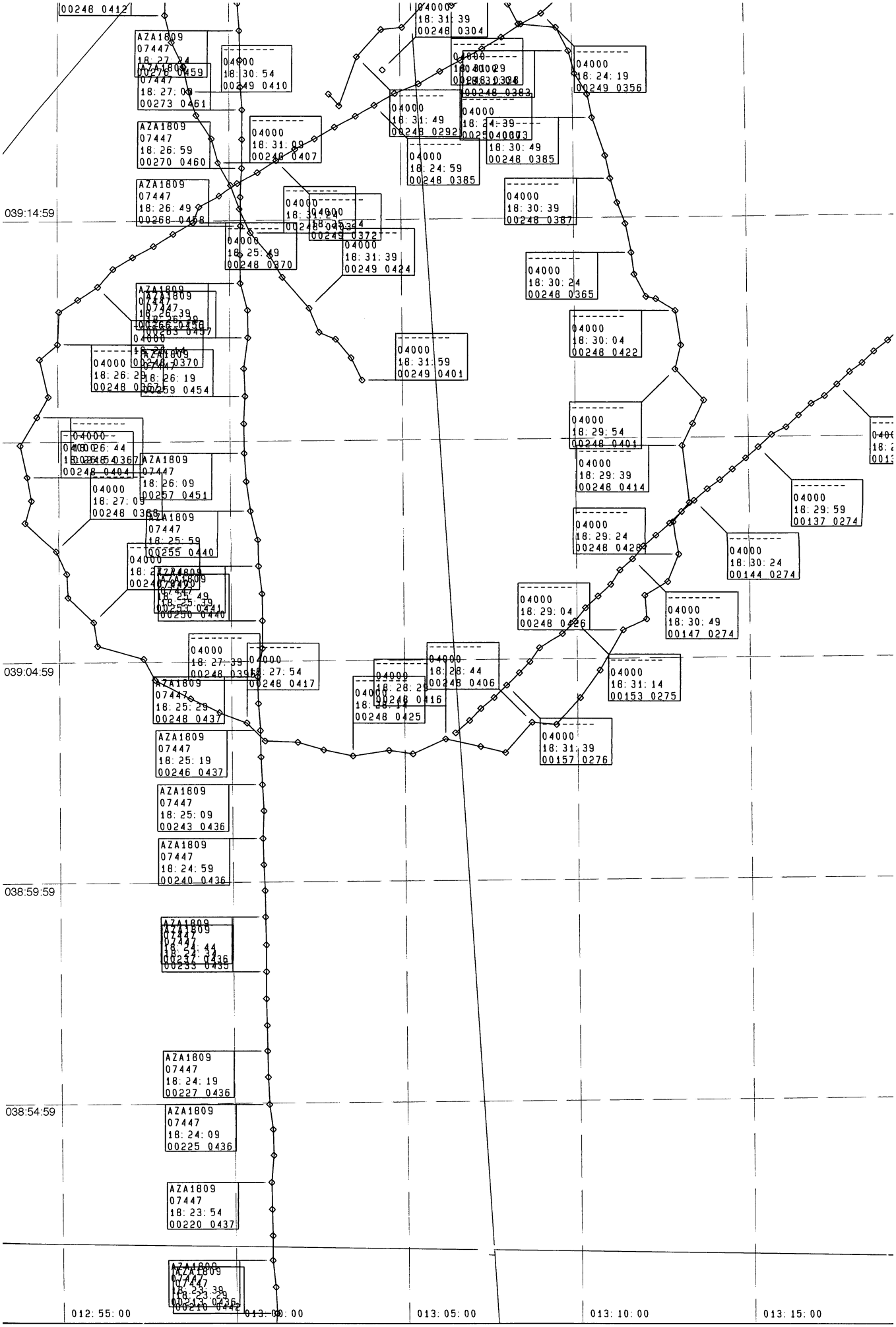
FLIGHT CREW (Before Next Flight / ASAP)
FCO → CREW BRIEFING CENTER
All Other Stations → KK
KK
FAX to SVT (039)-(06)-6563-8316
(039)-(06)-6563-8354
or
IMMEDIATE SITA TELEX to FCOHBAZ Priority QU
COPY TELEX to STATION OF DEPARTURE
and
ORIGINAL to → Sicurezza di Sistema di Gruppo
SVT Palazzina NPU
Aeroporto "Leonardo da Vinci"
00050 FIUMICINO

34. ID OPERATORS

☐ AZ ☐ RD ☒ XM ☐ GJ ☐ _____

All reports are distributed & analysed using the BASIS System

SIGNATURE RANK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013: 15: 00

ENAV S.p.A.
Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

LISTA TRAFFICO AZA 1809 DEL 14/12/2000

TIME	X1	Y1	CH AZA1809	SEP.VER.AZA-TN556	DIST. AZA-TN556	X2	Y2	CH TN 556	SEP.VER.AZA-TN105	DIST. AZA-TN105	X3	Y3	CH TN 105	SEP.VER.AZA-TN89	DIST. AZA-TN89	X4	Y4	CH TN 89	SEP.VER.AZA-TN528	DIST. AZA-TN528	X5	Y5	CH TN 528
182249	2350	-11692	196						-13200	59,2	3946	-8256	64	5200	42,1	3064	-9092	248	-5700	50,2	4580	-9382	139
182254	2349	-11653	197						---	58,2	3918	-8272	---	5100	41,1	3046	-9117	248	-6100	49,7	4578	-9384	136
182259	2347	-11614	199						-11800	57,3	3888	-8284	81	4900	40,1	3029	-9140	248	-6100	49,1	4582	-9402	138
182304	2345	-11575	200						-11900	56,4	3859	-8295	81	4800	39,1	3008	-9165	248	-6000	48,6	4585	-9414	140
182309	2325	-11538	203						---	55,6	3830	-8313	---	4500	38,2	2988	-9188	248	-6200	48,3	4589	-9432	141
182314	2325	-11500	205						---	54,7	3801	-8325	---	4300	37,1	2967	-9213	248	-6200	47,8	4593	-9449	143
182319	2323	-11461	208						-9800	54,3	3754	-8297	110	4000	36,1	2949	-9237	248	-6400	47,3	4598	-9462	144
182324	2321	-11423	210						-10000	53,5	3722	-8302	110	3800	35,1	2934	-9260	248	-6500	46,8	4602	-9480	145
182329	2323	-11385	210						-9100	52,8	3673	-8289	119	3800	34,1	2916	-9282	248	-6300	46,3	4606	-9497	147
182334	2321	-11347	212						-8700	52,3	3635	-8266	125	3700	33,2	2905	-9302	249	-6400	45,9	4612	-9511	148
182339	2317	-11308	213						-9000	51,6	3596	-8260	123	3600	32,2	2881	-9325	249	-6400	45,4	4616	-9529	149
182344	2317	-11272	216						-8300	51,1	3567	-8248	133	3300	31,3	2864	-9347	249	-6500	45,0	4620	-9546	151
182349	2316	-11234	218						-8000	50,7	3537	-8231	138	3100	30,3	2839	-9368	249	-6800	44,6	4630	-9563	150
182354	2315	-11195	220						-7500	50,2	3518	-8216	145	2900	29,3	2819	-9392	249	-6900	44,2	4636	-9580	151
182359	2318	-11156	222						-7900	49,8	3487	-8192	143	2700	28,5	2807	-9401	249	-7100	43,9	4652	-9597	151
182404	2317	-11118	223						-7400	49,4	3452	-8169	149	2600	27,5	2785	-9424	249	-7100	43,4	4657	-9616	152
182409	2312	-11082	225						-7300	49,3	3439	-8137	152	2400	26,5	2760	-9446	249	-7200	43,2	4664	-9633	153
182414	2310	-11042	226						-7200	48,9	3399	-8108	154	2300	25,3	2721	-9476	249	-7100	42,9	4678	-9650	155
182419	2309	-11004	227						-6800	48,5	3365	-8087	159	2200	24,3	2699	-9496	249	-7100	42,6	4684	-9668	156
182424	2308	-10967	230						-6800	48,2	3334	-8060	162	1900	23,4	2670	-9512	249	-7300	42,3	4691	-9685	157
182429	2307	-10928	232			3697	-8367	88	-7100	47,9	3300	-8030	161	1700	22,4	2642	-9531	249	-7400	42,2	4712	-9704	158
182434	2307	-10889	233	-14500	44,6	3668	-8379	88	-6700	47,7	3274	-7996	166	1700	21,5	2614	-9548	250	-7400	41,9	4721	-9721	159
182439	2307	-10850	236	-13700	43,7	3641	-8395	99	-6500	47,4	3250	-7966	171	1400	20,5	2583	-9565	250	-7500	41,8	4741	-9736	161
182444	2306	-10810	237	-13600	42,7	3612	-8408	99	-6300	47,3	3238	-7930	174	1300	19,6	2554	-9581	250	-7500	41,6	4751	-9754	162
182449	2305	-10772	238	-13900	41,8	3583	-8421	99	-5500	47,1	3214	-7897	183	1000	18,6	2523	-9599	248	-7500	41,4	4760	-9771	163
182454	2303	-10734	239	-12900	41,0	3566	-8434	110	-5500	47,1	3202	-7860	184	1000	17,8	2489	-9613	249	-7300	41,5	4782	-9783	166
182459	2302	-10696	240	-13000	40,2	3547	-8445	110	-4600	46,9	3177	-7828	194	800	16,8	2460	-9630	248	-7300	41,3	4792	-9800	167
182504	2303	-10656	242	-12400	38,9	3493	-8467	118	-4800	46,6	3156	-7795	194	600	15,9	2433	-9646	248	-7300	41,2	4804	-9816	169
182509	2301	-10618	243	-12500	38,0	3468	-8483	118	-4500	46,5	3133	-7763	198	600	15,0	2403	-9662	249	-7400	41,4	4827	-9823	169
182514	2299	-10578	244	-11900	37,2	3451	-8493	125	-3600	46,3	3112	-7728	208	500	14,1	2374	-9679	249	-7400	41,3	4840	-9839	170
182519	2298	-10539	246	-11700	36,3	3428	-8507	129	-3600	46,1	3090	-7696	210	300	13,2	2346	-9694	249	-7500	41,3	4853	-9854	171

182524	2295	-10500	247	-11800	35,4	3398	-8522	129	-2800	45,9	3068	-7663	219	200	12,3	2319	-9711	249	-7500	41,5	4876	-9861	172
182529	2294	-10461	248	-11900	34,5	3373	-8536	129	-2400	45,8	3048	-7629	224	100	11,5	2292	-9728	249	-7500	41,6	4890	-9875	173
182534	2301	-10420	249	-11000	33,5	3350	-8549	139	-2600	45,5	3021	-7598	223	0	10,6	2263	-9744	249	-7500	41,7	4912	-9882	174
182539	2301	-10380	250	-10600	32,6	3325	-8565	144	-1800	45,3	3002	-7565	232	-100	9,7	2235	-9762	249	-7500	41,7	4927	-9896	175
182544	2300	-10341	251	-10700	31,6	3299	-8582	144	-2000	45,1	2974	-7535	231	-200	8,9	2206	-9778	249	-7500	41,8	4943	-9909	176
182549	2295	-10301	253	-10600	30,7	3279	-8599	147	-1800	44,9	2950	-7505	235	-500	8,0	2198	-9801	248	-7700	42,2	4967	-9911	176
182554	2293	-10262	254	-10000	29,9	3261	-8614	154	-800	44,7	2927	-7475	246	-600	7,2	2170	-9818	248	-7800	42,4	4983	-9923	176
182559	2283	-10220	255	-9800	29,0	3238	-8632	157	-500	44,4	2903	-7444	250	-700	6,4	2142	-9836	248	-7800	42,7	5000	-9935	177
182604	2277	-10177	257	-9600	28,0	3218	-8649	161	-200	44,2	2875	-7414	255	-900	5,7	2112	-9852	248	-7600	43,1	5024	-9937	181
182609	2274	-10136	257	-9500	27,1	3197	-8667	162	-100	43,9	2852	-7387	256	-900	5,1	2084	-9869	248	-7500	43,3	5041	-9948	182
182614	2273	-10093	259	-9200	26,1	3176	-8688	167	400	43,5	2829	-7365	263	-1100	4,5	2062	-9895	248	-7600	43,6	5059	-9958	183
182619	2275	-10053	259	-8900	25,2	3159	-8706	170	800	43,2	2797	-7339	267	-1100	4,3	2034	-9914	248	-7500	43,6	5064	-9970	184
182624	2273	-10013	260	-9200	24,2	3137	-8725	168	300	42,9	2769	-7311	263	-1200	4,3	2007	-9932	248	-7500	43,9	5082	-9981	185
182629	2279	-9968	263	-8800	23,1	3116	-8750	175	600	42,6	2734	-7282	269	-1500	4,3	2005	-9979	248	-7600	44,3	5111	-9987	187
182634	2278	-9928	264	-8200	22,2	3097	-8770	182	1200	42,3	2706	-7255	276	-1600	4,8	1980	-10001	248	-7600	44,6	5130	-9997	188
182639	2268	-9889	266	-8400	21,3	3078	-8789	182	1100	42,0	2675	-7231	277	-1800	5,0	1992	-10055	248	-7700	45,1	5149	-10009	189
182644	2267	-9848	267	-7800	20,4	3058	-8811	189	1300	41,6	2639	-7209	280	-1900	5,9	1976	-10085	248	-7900	45,4	5166	-10021	188
182649	2268	-9806	268	-7500	19,4	3037	-8831	193	2000	41,3	2618	-7183	288	-2000	7,0	1952	-10126	248	-7900	45,7	5183	-10032	189
182654	2267	-9764	269	-7300	18,4	3015	-8853	196	2100	41,0	2588	-7158	290	-2100	8,0	1962	-10172	248	-7900	46,0	5201	-10042	190
182659	2269	-9722	270	-7000	17,4	2991	-8874	200	2000	40,7	2560	-7134	290	-2200	8,9	1968	-10206	248	-8300	46,3	5216	-10056	187
182704	2269	-9680	272	-6900	16,5	2973	-8894	203	2500	40,4	2533	-7108	297	-2400	10,0	1959	-10239	248	-8500	46,7	5234	-10067	187
182709	2269	-9637	273	-6700	15,5	2951	-8914	206	2800	40,1	2509	-7083	301	-2500	10,9	2004	-10280	248	-8700	47,1	5250	-10079	186
182714	2266	-9604	274	-6600	14,8	2939	-8935	208	2900	39,9	2485	-7061	303	-2600	11,7	2019	-10313	248	-8800	47,5	5264	-10098	186
182719	2265	-9565	276	-6600	13,7	2915	-8974	210	3000	39,6	2456	-7038	306	-2800	12,8	2021	-10347	248	-9000	47,9	5281	-10110	186
182724	2264	-9522	276	-6500	12,9	2896	-8995	211	3700	39,3	2427	-7015	313	-2800	13,8	2058	-10383	248	-9000	48,3	5296	-10125	186
182729	2261	-9482	275	-6400	12,0	2874	-9016	211	3700	39,0	2397	-6987	312	-2700	14,9	2064	-10417	248	-8900	48,8	5312	-10138	186
182734	2261	-9441	277	-5900	11,3	2858	-9031	218	3600	38,8	2367	-6962	313	-2900	15,7	2130	-10436	248	-9100	49,2	5329	-10150	186
182739	2259	-9399	277	-5900	10,6	2846	-9054	218	3600	38,5	2340	-6937	313	-2900	16,8	2146	-10466	248	-9100	49,6	5343	-10163	186
182744	2258	-9355	278	-5600	9,9	2826	-9072	222	3600	38,0	2310	-6923	314	-3000	17,8	2197	-10493	248	-9200	50,1	5359	-10176	186
182749	2257	-9313	278	-5300	9,6	2802	-9036	225	3500	37,7	2283	-6903	313	-3000	18,8	2239	-10513	248	-9200	50,6	5375	-10189	186
182754	2254	-9270	279	-5200	8,9	2778	-9050	227	3400	37,0	2262	-6903	313	-3100	19,7	2279	-10528	248	-9300	51,1	5388	-10201	186
182759	2253	-9228	279	-4800	8,2	2749	-9066	231	3300	36,6	2232	-6883	312	-3100	20,7	2305	-10554	248	-9300	51,6	5404	-10213	186
182804	2252	-9185	279	-4700	7,4	2717	-9080	232	3400	35,9	2201	-6886	313	-3100	21,5	2352	-10556	248	-9400	52,1	5417	-10226	185
182809	2252	-9141	279	-4500	7,0	2697	-9092	234	3500	35,4	2164	-6876	314	-3100	22,4	2389	-10567	248	-9400	52,6	5433	-10239	185
182814	2249	-9103	279	-4200	6,6	2674	-9103	237	3500	35,0	2137	-6868	314	-3100	23,2	2431	-10576	248	-9400	53,1	5449	-10251	185
182819	2249	-9063	279	-3900	6,4	2656	-9108	240	3500	34,4	2108	-6866	314	-3100	23,8	2483	-10568	248	-9400	53,6	5462	-10263	185
182824	2247	-9022	279	-3500	6,2	2633	-9117	244	3500	33,6	2068	-6878	314	-3100	24,6	2517	-10573	248	-9400	54,1	5477	-10276	185
182829	2247	-8984	280	-3500	6,0	2606	-9124	245	3500	32,7	2037	-6900	315	-3200	25,0	2564	-10551	248	-9500	54,7	5493	-10289	185
182834	2245	-8943	280	-3600	6,0	2583	-9125	244	3400	32,0	2005	-6909	314	-3200	25,9	2614	-10562	248	-9500	55,2	5507	-10301	185
182839	2244	-8902	280	-3200	6,1	2560	-9130	248	3400	31,4	1975	-6913	314	-3200	26,8	2650	-10571	248	-9500	55,8	5522	-10313	185
182844	2243	-8860	280	-3100	6,1	2533	-9126	249	3400	30,6	1947	-6925	314	-3200	27,0	2688	-10527	248	-9500	56,3	5538	-10325	185

182849	2244	-8822	280	-3100	6,3	2513	-9123	249	3400	29,9	1917	-6937	314	-3200	27,7	2723	-10530	248	-9500	56,9	5552	-10338	185
182854	2242	-8778	280	-3000	6,6	2488	-9123	250	3400	29,0	1892	-6957	314	-3200	27,9	2757	-10491	248	-9500	57,5	5567	-10350	185
182859	2240	-8737	280	-3000	6,8	2467	-9106	250	3400	28,1	1869	-6975	314	-3200	28,1	2785	-10451	248	-9600	58,1	5581	-10362	184
182904	2239	-8694	280	-3100	7,2	2446	-9103	249	3300	27,3	1846	-6994	313	-3200	28,0	2818	-10393	248	-9600	58,7	5596	-10375	184
182909	2240	-8652	280	-3100	7,5	2421	-9095	249	3300	26,4	1821	-7013	313	-3200	28,6	2852	-10377	248	-9600	59,3	5612	-10387	184
182913	2239	-8612	280	-3200	7,7	2397	-9082	248	3300	25,8	1794	-7025	313	-3200	28,7	2849	-10343	248	-9500	59,8	5626	-10398	185
182918	2237	-8567	280	-3100	8,3	2371	-9082	249	3100	23,8	1801	-7108	311	-3200	29,2	2882	-10323	248	-9500	60,5	5641	-10411	185
182923	2235	-8527	280	-3100	8,8	2346	-9081	249	3000	23,0	1779	-7130	310	-3200	29,3	2897	-10283	248	-9400	61,1	5657	-10422	186
182928	2235	-8482	280	-3000	9,5	2328	-9084	250	3100	21,6	1806	-7170	311	-3200	29,2	2889	-10235	248	-9400	61,8	5671	-10435	186
182933	2233	-8441	280	-3000	10,2	2302	-9087	250	3100	20,6	1792	-7196	311	-3200	29,6	2912	-10207	248	-9400	62,4	5687	-10447	186
182938	2232	-8402	280	-3000	11,1	2270	-9110	250	2900	19,1	1835	-7248	309	-3200	28,9	2902	-10124	248	-9400	63,0	5701	-10459	186
182943	2230	-8361	280	-3000	11,8	2246	-9119	250	2900	18,0	1841	-7277	309	-3200	29,1	2917	-10092	248	-9400	63,7	5716	-10472	186
182948	2228	-8319	280	-3000	12,5	2226	-9122	250	2900	16,9	1850	-7306	309	-3200	29,3	2933	-10058	248	-9400	64,3	5731	-10484	186
182953	2227	-8280	280	-3000	13,7	2198	-9158	250	2900	15,5	1880	-7354	309	-3200	29,0	2892	-10013	248	-9400	65,0	5747	-10494	186
182958	2228	-8238	280	-3000	15,2	2182	-9212	250	3000	14,3	1906	-7382	310	-3200	29,1	2900	-9978	248	-9400	65,6	5762	-10507	186
183003	2227	-8201	280	-3000	16,2	2165	-9235	250	3000	13,0	1946	-7418	310	-3200	28,9	2892	-9928	248	-9400	66,2	5777	-10519	186
183008	2222	-8162	280	-3000	17,4	2144	-9276	250	3000	11,5	1970	-7468	310	-3200	29,1	2864	-9911	248	-9400	66,9	5792	-10525	186
183013	2220	-8120	280	-3000	18,6	2167	-9308	250	2500	9,9	2031	-7513	305	-3200	29,6	2850	-9908	248	-9400	67,6	5807	-10538	186
183018	2220	-8080	280	-3000	19,7	2160	-9338	250	2400	8,4	2059	-7565	304	-3200	29,6	2833	-9875	248	-9400	68,2	5823	-10549	186
183023	2217	-8038	280	-3100	21,0	2174	-9380	249	2300	7,1	2081	-7604	303	-3200	29,8	2829	-9844	248	-9400	68,9	5840	-10553	186
183028	2215	-7996	280	-3100	22,2	2171	-9414	249	2100	5,4	2164	-7657	301	-3200	29,8	2820	-9802	248	-9400	69,6	5856	-10564	186
183033	2212	-7956	280	-3200	23,6	2155	-9464	248	2000	4,0	2196	-7698	300	-3200	29,8	2808	-9771	248	-9400	70,2	5864	-10570	186
183038	2210	-7916	280	-3200	24,8	2155	-9500	248	1500	2,8	2229	-7737	295	-3200	29,9	2798	-9736	248	-9400	70,9	5883	-10580	186
183043	2208	-7876	280	-3200	26,0	2165	-9539	248	1400	1,7	2260	-7778	294	-3200	30,0	2791	-9703	248	-9400	71,7	5906	-10591	186
183048	2208	-7836	280	-3100	27,2	2182	-9575	249	1300	1,3	2292	-7819	293	-3200	29,7	2772	-9648	248	-9400	72,4	5926	-10600	186
183053	2206	-7796	280	-3100	28,4	2190	-9611	249	1100	2,1	2324	-7859	291	-3200	29,7	2765	-9614	248	-9400	73,1	5942	-10612	186
183058	2205	-7756	280	-3100	29,5	2201	-9645	249	1000	3,3	2356	-7900	290	-3200	29,8	2747	-9584	248	-9500	73,8	5958	-10621	185
183103	2207	-7716	280	-3200	30,7	2223	-9679	248	-8000	33,2	3873	-9033	200	-3200	29,8	2738	-9551	248	-9500	74,4	5980	-10625	185
183108	2206	-7676	280	-3200	31,8	2233	-9714	248	-8000	33,9	3906	-9029	200	-3200	29,9	2720	-9517	248	-9500	75,1	5996	-10635	185
183113	2204	-7635	280	-3200	33,0	2253	-9747	248	-8000	33,5	3899	-8948	200	-3200	30,2	2666	-9512	248	-9400	75,8	6016	-10637	186
183118	2202	-7594	280	-3200	34,2	2266	-9781	248	-8000	34,1	3928	-8929	200	-3200	30,3	2651	-9483	248	-9400	76,5	6043	-10625	186
183123	2198	-7555	279	-3100	35,4	2282	-9816	248	-7900	34,5	3941	-8910	200	-3100	30,5	2637	-9454	248	-9300	77,2	6061	-10631	186
183128	2196	-7514	280	-3100	36,5	2310	-9849	249	-8000	34,6	3950	-8865	200	-3200	31,3	2570	-9485	248	-9400	77,5	6084	-10598	186
183133	2195	-7474	279	-3000	37,7	2328	-9880	249	-7900	34,6	3947	-8832	200	-3100	31,6	2549	-9463	248	-9300	78,2	6102	-10599	186
183138	2193	-7434	279	-3000	39,0	2367	-9925	249	-7900	34,8	3949	-8806	200	-3100	32,9	2499	-9517	248	-9300	78,7	6119	-10586	186
183143	2191	-7393	279	-3000	40,2	2381	-9960	249	-7900	34,8	3941	-8768	200	-3400	33,5	2469	-9520	245	-9200	78,9	6130	-10557	187
183148	2190	-7352	279	-3000	41,0	2405	-9970	249	-7900	35,6	3990	-8750	200	-3100	34,7	2434	-9560	248	-9200	79,5	6146	-10549	187
183153	2189	-7313	279	-3000	42,1	2427	-9997	249	-7900	35,1	3948	-8712	200	-3100	36,4	2409	-9631	248	-9200	79,8	6156	-10530	187
183158	2188	-7273	279	-3000	43,2	2443	-10029	249	-7900	35,4	3955	-8687	200	-3100	36,7	2394	-9614	248	-9200	79,8	6153	-10496	187

ENAV S.p.A.
Divisione Centro Regionale di Assistenza al Volo – Roma
Via Appia Nuova, 1491 – 00178 Roma ☎ 06 79086206 – Fax 06 79086411

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO 14/12/2000

GLI ORARI SONO UTC
FREQUENZA 128.8 MHz

181813	AZA1809	Buona sera Roma, AZA1809 passing 85 climbing 180 to Ponza
	ACC	Buona sera to you ALITALIA 1809, squawk ident on 7447
	AZA1809	Ident coming down, on 7447
181836	ACC	AZA1809 Roma radar contact. Proceed to PNZ and continue climbing to FL 280
	AZA1809	Climbing 280 to PNZ, AZA1809. Come stiamo a traffici adesso ... sconosciuti?
	ACC	Guardi al momento sembra che si siano spostati verso est, quindi siano andati verso la zona di Sorrento quindi al momento lungo la rotta non dovrebbe incontrare sconosciuti
	AZA1809	Grazie
182319	ACC	AZA1809 Roma
	AZA1809	Avanti
	ACC	Sì.....al momento vediamo un traffico a 250 che mantiene una prua approssimativa di 200, 30 miglia a sue ore 2
	AZA1809	Copiato, grazie
182405	AZA1851	Buona sera Roma, AZA1851 climbing level 160 inbound BEROL
	ACC	AZA1861, correction AZA1851, buona sera squawk ident
	AZA1851	Ident 1851
182423	ACC	AZA1809 il traffico è ora a 20 miglia mantiene 250
	AZA1809	Va bene noi stiamo passando 240, lui è a 250, confermate?

	ACC	Sì, noi leggiamo, supponiamo mantenga 250 non conosciamo le sue intenzioni e neanche l'attendibilità eventualmente del "C" del modo "C"
	AZA1809	Va bene comunque sempre prua 200?
	ACC	No, al momento credo che sia una 240 stia procedendo verso ovest, suppongo
	AZA1809	Adesso ci appare qualcosa sul TCAS a 15 miglia nostre ore una, non so se è lui o un altro traffico, vediamo 246 la quota, 249 anzi
	ACC	Sì è lui, adesso 12 miglia
- - 2510	AZA1809	Sì confermiamo, lo abbiamo in vista sul TCAS e lo vediamo anche ci sta attraversando adesso, con le luci, davanti a noi
	ACC	AZA1851 radar contact, continue climb to FL 260
	AZA1851	FL 260, AZA1851
182608	AZA1809	Ci sta sfilando alla nostra sinistra AZA1851, 1600 ft sotto di noi
	ACC	E' la 1809 che chiama, conferma?
	AZA1809	Sì, scusate. Abbiamo fatto ieri la 1851, la 1809
	ACC	Sì, no perché il collega della 1851 è dietro di lei, probabilmente tra una decina di minuti avrà lo stesso problema
	AZA1809	Sì il traffico era a 250, e....ha le luci accese ma non si vede niente fuori
182639	ACC	AZA1851, Roma
	AZA1851	È in ascolto
	ACC	Sì, per lei il traffico sconosciuto al momento è 28 miglia a sue ore 11 circa, mantiene 250 ed al momento supponiamo stia effettuando una virata a sinistra prendendo una prua diciamo.....est sud-est. Mantiene 250 a 25 miglia da lei al momento. Mi faccia sapere le intenzioni se vuole fermarsi a 240
	AZA1851	Si ferma a 240 la 1851. Noi vediamo 2 traffici, uno a ore 11 e uno a ore 10 circa
	ACC	Si può darsi che siano 2 in coppia. Noi al momento supponiamo che sia uno soltanto.
	AZA1851	No no sono lontani tra loro. Non so quale dei due è quello che ci interessa.
182728	AZA1809	... e per informazioni noi abbiamo un altro traffico a nostre ... a 2 ... il livello è, e questa è la 1809 che parla, il livello 229 in salita a nostre ore 3 e ... sono ... 2

		velivoli penso. Adesso si stanno incrociando, sono qui sotto di noi
	ACC	Sì, anche noi vediamo un 234, a sue ore 3 al momento
	AZA1809	Sì, confermiamo saranno un 7/8 miglia da noi e.....ci stanno passando in ore 4 adesso
	ACC	AZA1851 lei ha in vista il suo traffico al momento a ore 11, 250 che mantiene?
	AZA1851	Affermativo
182844	AZA1851	Roma la 1851 a Napoli sporgeremo denuncia all'autorità di Polizia
	ACC	Ricevuto
182930	ACC	AZA1809 Roma
	AZA1809	Avanti
	ACC	Sì, al momento altro traffico per lei sconosciuto a sue ore 11, 15 miglia supponiamo mantenga 310 ma ... sono più di un traffico e ... non riusciamo a distinguere bene la quota
	AZA1809	Sì guardi lo vediamo sul TCAS. La quota del TCAS è 310 seguito da un altro traffico 304 ... in discesa
	ACC	Roger
	AZA1809	Stanno scendendo a 300 di livello adesso
183225	ACC	AZA1809 Roma
	AZA1809	Avanti
	ACC	Sì la informo che noi faremo ... segnaleremo l'accaduto e ... alle autorità competenti e ... se lei vuole può fare altrettanto e può contattare il collega sulla 127.35 buona sera
	AZA1809	27.35 grazie lo faremo anche noi....i traffici li abbiamo visti che ci sfilavano e ... e sulla nostra destra, grazie mille di tutto. 27.35
	ACC	Salve
183631	ACC	AZA1851 Roma ... faremo anche noi ... inoltreremo anche noi rapporto, contatti 27.35. salute.
	AZA1851	27.35 saluti a voi. Grazie mille, 1851.

Gruppo Alitalia

AIR SAFETY REPORT

1. TYPE OF EVENT — ASR ☒ AIRPROX/ATC ☐ BIRD STRIKE ☐ WAKE TURBULENCE ☐ TCAS RA ☒ — TICK ALL THAT APPLY

Authority Occurrence Number

2. CAPTAIN ID NUMBER	CO-PILOT ID NUMBER	OTHER CREW ID NUMBER

3. DATE OF OCCURRENCE D M Y	4. TIME LOCAL/UTC	5. FLIGHT NR	6. ROUTE	7. SQUAWK
14 / 12 / 00	DAY / (NIGHT)	AZ 1809	FROM PMO TO BLQ DIVERTED	7447

8. A/C TYPE	9. REGISTRATION	10. PASSENGERS/CREW	11. FUEL JETTISONED	12. ETOPS
MD 80	I-DAVD	40 / 6	KG	YES / (NO)

13. ALTITUDE	14. SPEED / MACH NR	15. A/C WEIGHT	16. TECH LOG BOOK REF
FL. 280 / FT	.76	47200 KG	YES / (NO)

17. FLIGHT PHASE

TOWING → PARKED → 18. AIRPORT + STAND → PUSH-BACK → TAXI-OUT → TAKE-OFF RUN → INITIAL CLIMB

CLIMB → (CRUISE) → 19. GEOG. POSITION N39 50.2 E12 59.6 → DESCENT → HOLDING → APPROACH → LANDING → TAXI-IN → STAND

20. MET	21. WX ACTUAL	22. SIGNIFICANT WX
IMC (VMC) 30 ...km	WIND / VIS. km / CLOUD / TEMP °C ... QNH ...	MODERATE / SEVERE RAIN / SNOW / ICING / FOG / TURBULENCE HAIL / VOLCANIC ASH / WINDSHEAR

23. RUNWAY	24. RUNWAY STATE	25. CONFIGURATION
	DRY / WET / ICE / SNOW / SLUSH / STANDING WATER RVR ...	(A/P) (A/T) - GEAR - FLAP - SLAT - SPOILERS ....

26. SUMMARY (CONCISE DESCRIPTION OF THE EVENT)

DURANTE LA CROCIERA AVVISO TCAS (TA) per due tracce (segnalate da ROMA RADAR SCONOSCIUTE). Una 700ft low, l'altra 2000ft UP.

27. EVENT AND CAUSE (DETAILED DESCRIPTION OF THE EVENT AND ITS IMMEDIATE CAUSE)

ROMA RADAR CI SEGNALAVA DIVERSE TRACCE SCONOSCIUTE SUL TIRRENO (FORSE VELIVOLI MILITARI USA DECOLLATI DALLA PORTAEREI). NE ABBIAMO AVVISTATE ALMENO 6 (A VISTA E CON IL TCAS), ED UNA DI QUESTE ERA A 2NM in sopra e 700ft sotto. TUTTE LE TRACCE INCONTRATE AVEVANO QUOTA CONTINUAMENTE VARIABILE.

28. ACTIONS AND RESULTS (ACTIONS TAKEN, THEIR RESULT AND ANY SUBSEQUENT EVENTS)

MANTENUTO IL TRAFFICO IN VISTA.

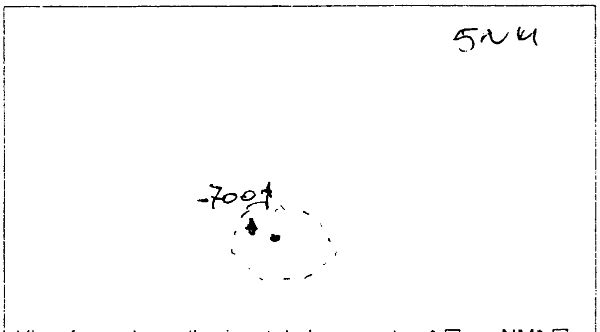
29. OTHER INFORMATION AND SUGGESTIONS FOR PREVENTATIVE ACTION

30.

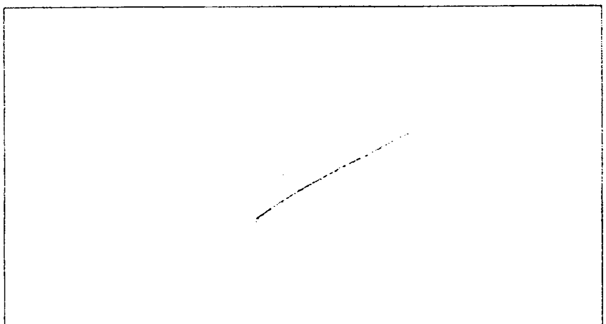
AIRPROX - ATC INCIDENT - TCAS RA - WAKE TURBULENCE - BIRD STRIKE

31. AIRPROX* / ATC INCIDENT* (*delete as applicable) and/or TCAS RA

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right assuming YOU are at the centre of each diagram. Indicate appropriate scale.



View from above (horizontal plane: meters* ☐ or NM* ☐



View from astern (vertical plane: feet)

SEVERITY OF RISK	(LOW) / MED / HIGH	MINIMUM VERTICAL SEPARATION	700 FT
AVOIDING ACTION TAKEN	YES / (NO)	MINIMUM HORIZONTAL SEPARATION	2 M/(NM*)
REPORTED TO ATC	ROMA RADAR UNIT	TCAS ALERT	RA / TA / NONE
ATC INSTRUCTIONS ISSUED	NONE (IMPOSSIBLE)	TYPE OF RA	………………………
YOUR CALLSIGN	47 1809	RA FOLLOWED	YES / NO (VERTICAL DEVIATION ………… FT)
FREQUENCY IN USE	134.2 (?)	WAS TCAS ALERT NECESSARY / USEFUL / NUISANCE	
HEADING	350° DEG	DESCRIBE OVERLEAF:	
CLEARED ALTITUDE	280	OTHER A/C TYPE MARKINGS, COLOUR, LIGHTING, CALLSIGN ETC.	

32. WAKE TURBULENCE

HEADING ……… DEG TURNING LEFT / RIGHT / NO

POSITION ON GLIDESLOPE HIGH / LOW / ON

POSITION ON EXTENDED CENTRELINE LEFT / RIGHT / ON

CHANGE IN ATTITUDE PITCH …… ROLL …… YAW …… DEG

CHANGE IN ALTITUDE ……………… FT

WAS THERE BUFFET? YES / NO STICK SHAKE? YES / NO

WHAT MADE YOU SUSPECT WAKE TURBULENCE?

DESCRIBE ANY VERTICAL ACCELERATION

GIVE DETAILS OF PRECEDING A/C (TYPE, CALLSIGN ETC)

WERE YOU AWARE OF OTHER A/C BEFORE INCIDENT? YES/NO

33. BIRD STRIKE

TYPE OR SIZE OF BIRDS

NR SEEN	1 ☐	2-10 ☐	11-100 ☐	MORE ☐
NR STRUCK	1 ☐	2-10 ☐	11-100 ☐	MORE ☐
TIME	DAWN ☐	DAY ☐	DUSK ☐	NIGHT ☐

DESCRIBE IMPACT POINTS AND DAMAGE OVERLEAF

FILING INSTRUCTIONS

FLIGHT CREW (Before Next Flight / ASAP)

FCO → CREW BRIEFING CENTER
All Other Stations → KK

KK
FAX to SVT (039)-(06)-6563-8316
(039)-(06)-6563-8354

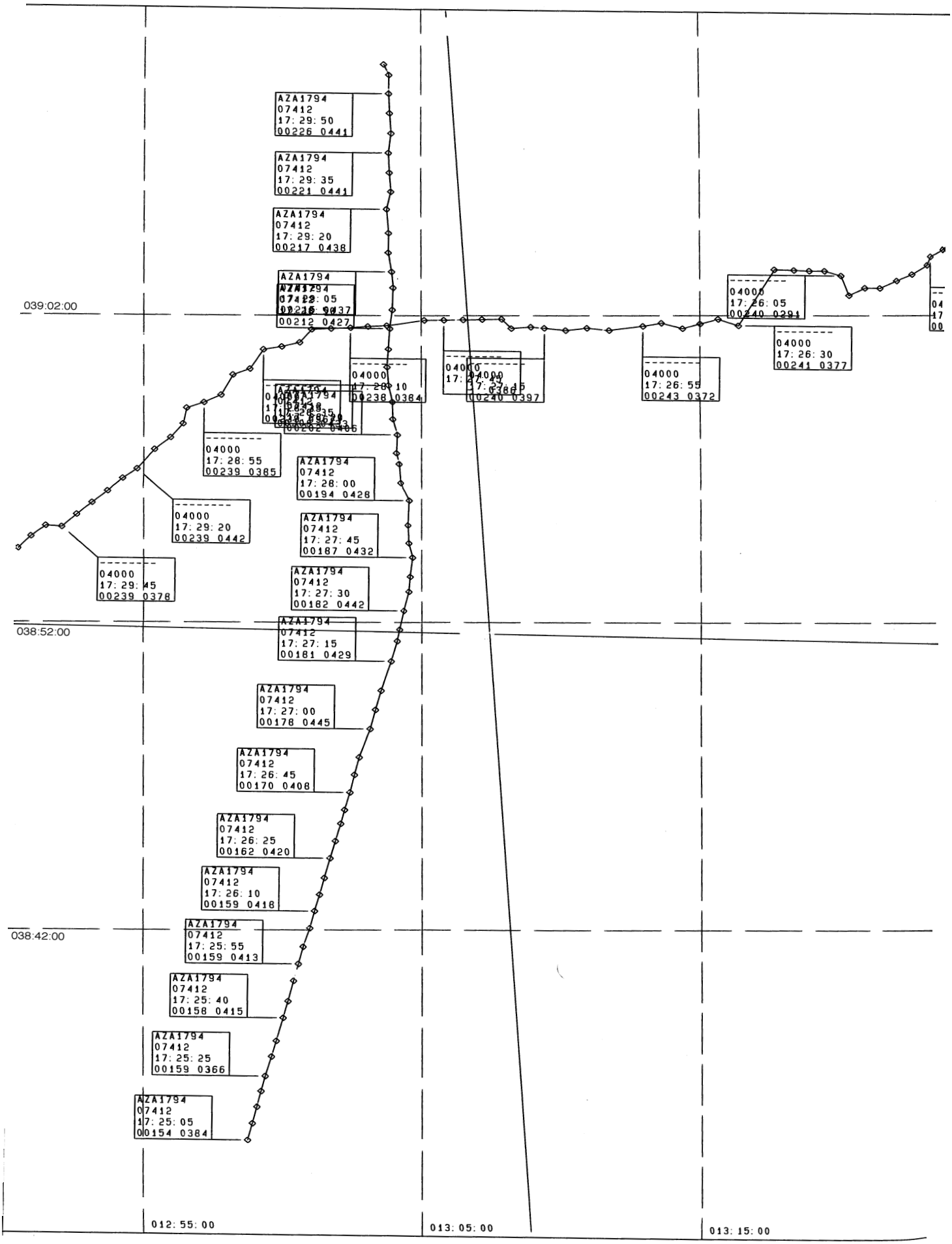
or
IMMEDIATE SITA TELEX to FCOHBAZ Priority QU
COPY TELEX to STATION OF DEPARTURE
and
ORIGINAL to → Sicurezza di Sistema di Gruppo
SVT Palazzina NPU
Aeroporto "Leonardo da Vinci"
00050 FIUMICINO

34. ID OPERATORS

☐ AZ ☒ RD ☐ XM ☐ GJ ☐ ______

All reports are distributed & analysed using the BASIS System

SIGNATURE RANK


AZA1794
07412
17: 29: 50
00226 0441
AZA1794
07412
17: 29: 35
00221 0441
AZA1794
07412
17: 29: 20
00217 0438
AZA1794
07412
17: 29: 05
00212 0427
039:02:00
04000
17: 28: 10
00238 0384
04000
17: 28: 55
00239 0385
AZA1794
07412
17: 28: 00
00194 0428
04000
17: 29: 20
00239 0442
AZA1794
07412
17: 27: 45
00187 0432
04000
17: 29: 45
00239 0378
AZA1794
07412
17: 27: 30
00182 0442
038:52:00
AZA1794
07412
17: 27: 15
00181 0429
AZA1794
07412
17: 27: 00
00178 0445
AZA1794
07412
17: 26: 45
00170 0408
AZA1794
07412
17: 26: 25
00162 0420
AZA1794
07412
17: 26: 10
00159 0418
038:42:00
AZA1794
07412
17: 25: 55
00159 0413
AZA1794
07412
17: 25: 40
00158 0415
AZA1794
07412
17: 25: 25
00159 0366
AZA1794
07412
17: 25: 05
00154 0384
04000
17: 26: 05
00240 0391
04000
17: 26: 30
00241 0377
04000
17: 26: 55
00243 0372
012: 55: 00
013: 05: 00
013: 15: 00

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Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

STAMPA LISTA TRAFFICO AZA 1794 DEL 15/12/2000

TIME	X1	Y1	CH **AZA1794**	SEP.VER.AZA-TN492	DIST. AZA-TN492	X2	Y2	CH TN492
172615	2335	-11839	160	8000	24,5	3197	-10527	240
172620	2343	-11804	160	8000	23,8	3170	-10526	240
172625	2353	-11763	162	7800	22,9	3135	-10525	240
172630	2362	-11727	162	7900	20,2	3072	-10643	241
172635	2371	-11691	163	7800	19,6	3036	-10630	241
172640	2378	-11662	169	7200	18,7	3004	-10640	241
172645	2387	-11626	170	7200	17,8	2973	-10650	242
172650	2395	-11589	174	6900	17,1	2935	-10639	243
172655	2403	-11552	175	6800	16,2	2902	-10646	243
172700	2422	-11493	178	6200	14,6	2842	-10655	240
172705	2431	-11453	180	6000	13,8	2803	-10651	240
172710	2441	-11413	178	6200	12,9	2765	-10656	240
172715	2458	-11351	181	5900	11,7	2727	-10652	240
172720	2469	-11309	183	---	10,9	2703	-10650	---
172725	2473	-11285	183	---	10,3	2668	-10653	---
172730	2481	-11246	182	---	9,9	2651	-10634	---
172735	2490	-11206	186	---	9,1	2616	-10635	---
172740	2492	-11175	187	---	8,5	2582	-10636	---
172745	2496	-11135	187	---	7,8	2548	-10637	---
172750	2489	-11105	189	---	7,3	2513	-10638	---
172755	2487	-11068	192	4800	6,6	2444	-10650	240
172800	2489	-11016	194	4600	5,8	2410	-10652	240
172805	2472	-10978	197	4100	5,3	2379	-10655	238
172810	2469	-10939	199	3900	4,8	2344	-10657	238
172815	2464	-10916	200	3800	4,7	2310	-10659	238
172820	2465	-10878	202	3700	4,1	2289	-10687	239
172825	2456	-10845	202	3700	3,9	2257	-10696	239
172830	2455	-10809	204	3500	4,0	2225	-10702	239
172835	2448	-10775	206	3300	3,9	2201	-10743	239
172840	2445	-10737	207	3300	4,3	2171	-10756	240
172845	2447	-10699	210	2900	4,9	2150	-10798	239
172850	2449	-10656	212	2700	5,7	2120	-10814	239
172855	2453	-10617	214	2500	6,6	2089	-10826	239
172900	2454	-10571	215	2400	7,3	2083	-10859	239
172905	2451	-10538	215	2400	8,2	2061	-10888	239
172910	2445	-10498	217	2200	9,1	2033	-10913	239
172915	2445	-10457	215	2400	10,4	2002	-10954	239
172920	2441	-10408	217	2200	11,4	1977	-10974	239
172925	2448	-10371	218	2100	12,5	1951	-11001	239
172930	2445	-10331	220	1900	13,6	1923	-11026	239
172935	2443	-10290	221	1800	14,6	1896	-11051	239
172940	2447	-10249	222	1700	15,8	1870	-11077	239
172945	2444	-10207	224	1500	16,5	1842	-11075	239
172950	2442	-10166	226	1300	17,5	1816	-11097	239
172955	2442	-10127	227	1300	18,6	1791	-11122	240

AZA1794.xls

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Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO15/12/2000

GLI ORARI SONO UTC
FREQUENZA 128.8 MHz

172314	AZA1794	Roma buon pomeriggio AZA1794 climbing 160
	ACC	AZA1794 Roma buna sera squawk ident
	AZA1794	Ident
172523	AZA1794	Roma AZA1794 reaching 160 looking for higher
	ACC	AZA1794 continue climb to flight level 280 and please squawk ident
172540	ACC	AZA1794 continue climb to FL 280 and please squawk ident
	AZA1794	Clear 280 identing 1794
172600	ACC	AZA1794 Radar contact proceed LURON-PNZ for your information we have the routing between LURON and PNZ0 is affected by several traffics, unknown traffics, from the sea to unlimited we can see the nearest one now is about 15 miles at your 2 o'clock 1 o'clock and mode Charlie is showing 220
	AZA1794	Roger cleared to LURON PNZ we are looking for other traffic unidentified
	ACC	Roger
172705	ACC	AZA1794 the traffic is now 10-9 miles, 9 miles ahead of you 1 o'clock
	AZA1794	We have on TCAS just plus five thousand and three hundred above us
	ACC	Roger the traffic is from right to the left sir
172728	AZA1794	Confirm. Now plus four thousand five hundred just 8 miles
	ACC	Ok we don't have now the "C", the mode Charlie

172755	AZA1794	We are two traffic just following. ..... On TCAS we have only one report but there are two traffics
172808	ACC	Roger, my be ... may be is couple aircraft. I don't know
	AZA1794	Yes now we have on sight just left hand side
	ACC	Yes there are 3 miles now
173030	AZA1794	Roma scusate 1794
	ACC	1794 dica
	AZA1794	Ma questi non avevano dichiarato niente praticamente
	ACC	E guardi c'è un'esercitazione sono almeno una ventina di aeromobili tra la sua posizione e AMANO
	AZA1794	Ho capito grazie
173147	ACC	AZA1794 Roma
	AZA1794	Avanti
	ACC	E guardi ce ne sono altri ore 12 la distanza sulle 35 40 miglia
	AZA1794	Ho capito, quindi sono segnalati solo tramite NOTAM
	ACC	E magari ci fosse il NOTAM
	AZA1794	Ah manco quello apposta ...(incomprensibile)...
	ACC	E guardi vediamo 2 tracce, il modo Charlie segnano 232 uno e 240 l'altro
	AZA1794	Io potrei fare benissimo un ASR perché è passato a tre miglia quattromila piedi di fronte a noi
	ACC	Sì lo faccia è gradito
	AZA1794	Ok
	ACC	Qui purtroppo più di questo non possiamo fare
	AZA1794	No no vi ringraziamo di tutto ecco anche della informativa, grazie molte
173407	ACC	AZA1794 per informazione il traffico di cui ... i traffici di cui le parlavano ora sono 15 miglia sue ore 10 ... Il Charlie da sempre 240 uno 237 l'altro
	AZA1794	... undici uno più basso di quattromila piedi e l'altro di cinquemila e tre, quasi in coppia
	ACC	Sì perfetto coincidono
173506	AZA1794	Roma ora 1794 ce l'ha quasi al traverso e in salita questo qua, a 6 miglia da noi
	ACC	Ricevuto la 1794
	ACC	Sì, vediamo che uno dei due è in salita ma non distinguiamo più il Charlie

	AZA1794	Sì ora è andato dietro di noi
173651	ACC	AZA1794 per ulteriori passi sulla 127.35 buona serata
173656	AZA1794	Buona serata e grazie ancora.

Gruppo Alitalia

AIR SAFETY REPORT

1. TYPE OF EVENT — ASR ☐ AIRPROX/ATC ☒ BIRD STRIKE ☐ WAKE TURBULENCE ☐ TCAS RA ☐ (TICK ALL THAT APPLY)

Authority Occurrence Number

2. CAPTAIN ID NUMBER	CO-PILOT ID NUMBER	OTHER CREW ID NUMBER

3. DATE OF OCCURRENCE D M Y	4. TIME ~~LOCAL~~/UTC ~~DAY~~ / NIGHT	5. FLIGHT NR	6. ROUTE FROM TO DIVERTED	7. SQUAWK
15 / 12 / 2000	1738	AZA 1794	FCO	7412

8. A/C TYPE	9. REGISTRATION	10. PASSENGERS/CREW	11. FUEL JETTISONED	12. ETOPS
MD 82	I-DAVC	132 / 6	KG	~~YES~~ / NO

13. ALTITUDE	14. SPEED / MACH NR	15. A/C WEIGHT	16. TECH LOG BOOK REF
FL. 180 / FT	300	54.500 KG	YES (NO)

17. FLIGHT PHASE

TOWING → PARKED → 18. AIRPORT + STAND → PUSH-BACK → TAXI-OUT → TAKE-OFF RUN → INITIAL CLIMB

(CLIMB) → CRUISE → 19. GEOG. POSITION LUREN ON AWY UM 726 → DESCENT → HOLDING → APPROACH → LANDING → TAXI-IN → STAND

20. MET	21. WX ACTUAL	22. SIGNIFICANT WX
IMC (VMC) ... ...km	WIND / VIS. km / CLOUD / TEMP °C ... ... QNH	MODERATE / SEVERE RAIN / SNOW / ICING / FOG / TURBULENCE HAIL / VOLCANIC ASH / WINDSHEAR
23. RUNWAY	**24. RUNWAY STATE** DRY / WET / ICE / SNOW / SLUSH / STANDING WATER RVR	**25. CONFIGURATION** (A/P) (A/T) - GEAR - FLAP - SLAT - SPOILERS ....

26. SUMMARY (CONCISE DESCRIPTION OF THE EVENT)

27. EVENT AND CAUSE (DETAILED DESCRIPTION OF THE EVENT AND ITS IMMEDIATE CAUSE)

28. ACTIONS AND RESULTS (ACTIONS TAKEN, THEIR RESULT AND ANY SUBSEQUENT EVENTS)

29. OTHER INFORMATION AND SUGGESTIONS FOR PREVENTATIVE ACTION

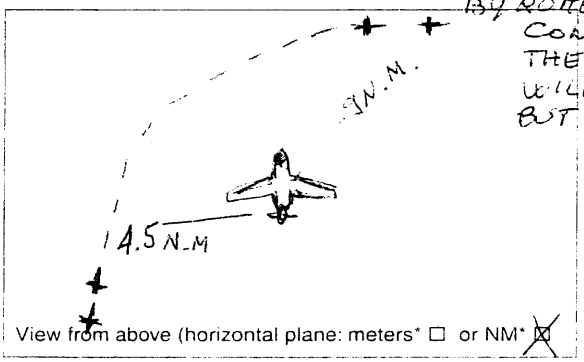
30.

THE TRAFFIC CONSIST OF TWO MILITARY JET (U.S.) UNIDENTIFIED BY ROME ATC. WE WERE (ASSUSED BY ROME CONTROL AND WE CHECKED JUST AFTER ON THE DISPLAY OF TCAS. THIS EVENT WILL VERIFY ALSO A FEW MINUTES LATER, BUT WITH MINIMUM DIST. OF 7 N.M.

AIRPROX - ATC INCIDENT - TCAS RA - WAKE TURBULENCE - BIRD STRIKE

31. AIRPROX* / ATC INCIDENT* (*delete as applicable) and/or TCAS RA

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right assuming YOU are at the centre of each diagram. Indicate appropriate scale.



View from above (horizontal plane: meters* ☐ or NM* ☒)

View from astern (vertical plane: feet)

SEVERITY OF RISK	(LOW) / MED / HIGH	MINIMUM VERTICAL SEPARATION	4000 FT
AVOIDING ACTION TAKEN	YES (NO)	MINIMUM HORIZONTAL SEPARATION	4.5 M/NM*
REPORTED TO	ACC ROME UNIT	TCAS ALERT	RA / TA / NONE
ATC INSTRUCTIONS ISSUED	YES, ADVISED BY ATC	TYPE OF RA	
YOUR CALLSIGN	AZ 1754	RA FOLLOWED	YES (NO) (VERTICAL DEVIATION ... FT)
FREQUENCY IN USE	128.8	WAS TCAS ALERT NECESSARY /	USEFUL / NUISANCE
HEADING	356 DEG	DESCRIBE OVERLEAF:	
CLEARED ALTITUDE	FL 280	OTHER A/C TYPE MARKINGS, COLOUR, LIGHTING, CALLSIGN ETC.	

32. WAKE TURBULENCE

HEADING ... DEGTURNING LEFT / RIGHT / NO
POSITION ON GLIDESLOPE HIGH / LOW / ON
POSITION ON EXTENDED CENTRELINE LEFT / RIGHT / ON
CHANGE IN ATTITUDE PITCH ... ROLL ... YAW ... DEG
CHANGE IN ALTITUDE ... FT
WAS THERE BUFFET? YES / NO STICK SHAKE? YES / NO
WHAT MADE YOU SUSPECT WAKE TURBULENCE?

DESCRIBE ANY VERTICAL ACCELERATION

GIVE DETAILS OF PRECEDING A/C (TYPE, CALLSIGN ETC)

WERE YOU AWARE OF OTHER A/C BEFORE INCIDENT? YES/NO

33. BIRD STRIKE

TYPE OR SIZE OF BIRDS

NR SEEN	1 ☐	2-10 ☐	11-100 ☐	MORE ☐
NR STRUCK	1 ☐	2-10 ☐	11-100 ☐	MORE ☐
TIME	DAWN ☐	DAY ☐	DUSK ☐	NIGHT ☐

DESCRIBE IMPACT POINTS AND DAMAGE OVERLEAF

FILING INSTRUCTIONS

FLIGHT CREW (Before Next Flight / ASAP)
FCO → CREW BRIEFING CENTER
All Other Stations → KK
KK
FAX to SVT (039)-(06)-6563-8316
(039)-(06)-6563-8354
or
IMMEDIATE SITA TELEX to FCOHBAZ Priority QU
COPY TELEX to STATION OF DEPARTURE
and
ORIGINAL to → Sicurezza di Sistema di Gruppo
SVT Palazzina NPU
Aeroporto "Leonardo da Vinci"
00050 FIUMICINO

34. ID OPERATORS

☐ AZ ☒ RD ☐ XM ☐ GJ ☐ _____

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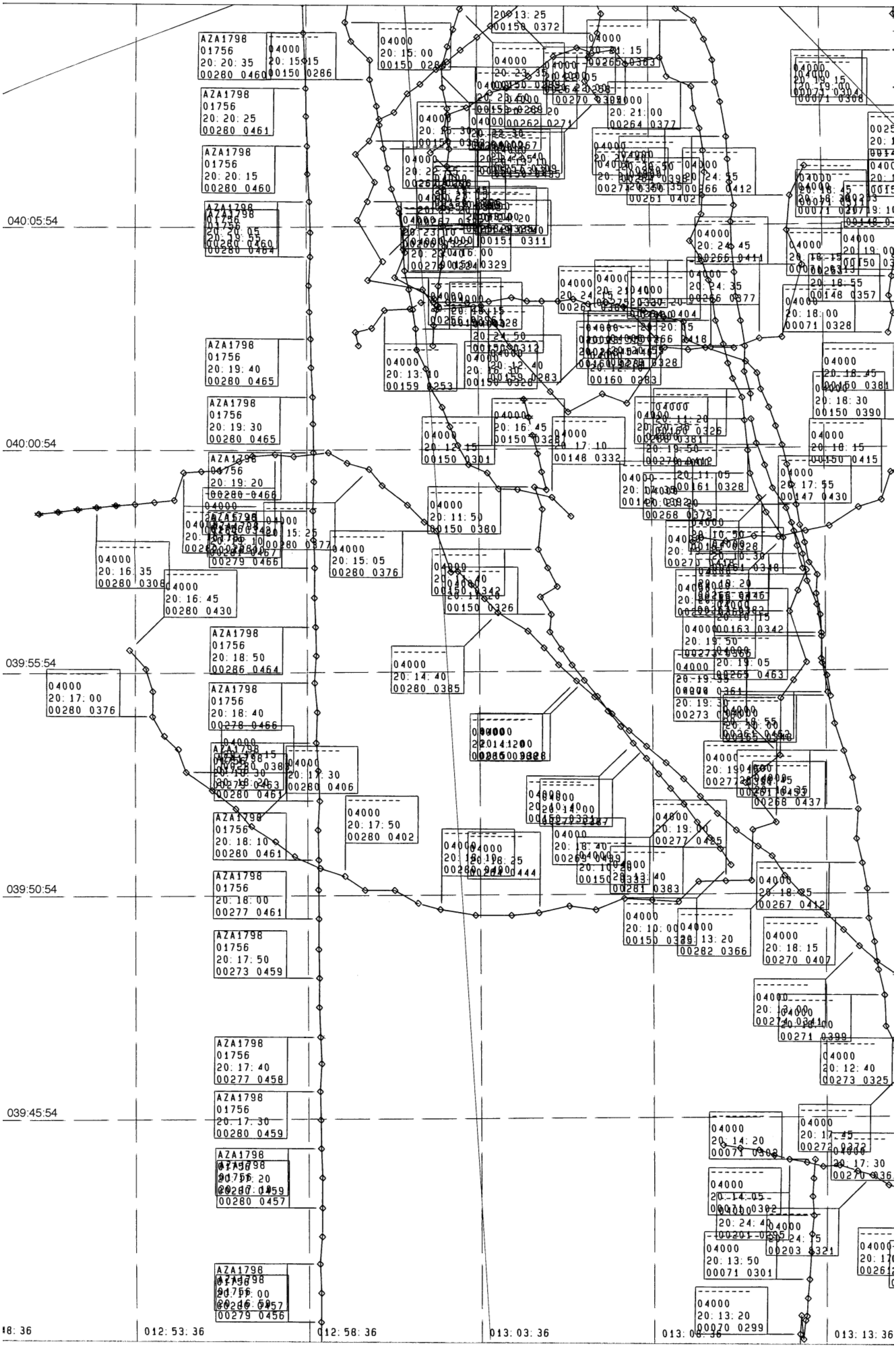
SIGNATURE

RANK: CPT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040:00:54
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039:50:54
039:45:54
012: 53: 36
012: 58: 36
013: 03: 36
013: 13: 36

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Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

LISTA TRAFFICO AZA 1798 DEL 15/12/2000

TIME	X1	Y1	CH AZA1798	SEP.VER.AZA-TN970	DIST. AZA-TN970	X2	Y2	CH TN 970	SEP.VER.AZA-TN520	DIST. AZA-TN520	X3	Y3	CH TN 520	SEP.VER.AZA-TN47	DIST. AZA-TN47	X4	Y4	CH TN 47	SEP.VER.AZA-TN57	DIST. AZA-TN57	X5	Y5	CH TN 57	SEP.VER.AZA-TN67	DIST. AZA-TN67	X6	Y6	CH TN 67
201000	2267	-11383	205	1600	55,8	3935	-8228	221	---	52,8	3557	-8262	---															
201005	2265	-11345	206	1500	54,9	3939	-8254	221	---	52,3	3561	-8259	---															
201010	2266	-11303	208	1300	53,8	3941	-8298	221	---	51,7	3565	-8257	---															
201015	2263	-11263	209	1200	52,7	3929	-8330	221	---	51,2	3570	-8255	---															
201020	2258	-11237	211	1000	51,9	3928	-8366	221	---	50,9	3573	-8254	---															
201025	2255	-11198	213	800	51,1	3938	-8394	221	---	50,5	3578	-8252	---															
201030	2255	-11167	214	700	50,2	3942	-8429	221	---	50,1	3584	-8247	---															
201035	2255	-11126	218	300	49,6	3957	-8448	221	---	49,6	3588	-8245	---															
201040	2254	-11087	220	100	48,7	3958	-8478	221	---	49,1	3593	-8243	---															
201045	2253	-11039	221	0	47,6	3979	-8527	221	-6400	48,9	3598	-8213	157															
201050	2252	-11000	222	-100	46,9	3993	-8558	221	-6500	48,4	3602	-8209	157															
201055	2250	-10960	225	-400	46,2	4010	-8587	221	-6800	48,0	3607	-8204	157															
201100	2249	-10925	227	-600	45,6	4040	-8618	221	---	48,1	3545	-8136	---															
201105	2247	-10885	231	-1000	45,0	4058	-8647	221	-4000	47,8	3491	-8090	191															
201110	2245	-10859	234	-1300	44,6	4080	-8672	221	-3900	47,5	3446	-8064	195															
201115	2244	-10820	235	-1400	44,1	4107	-8696	221	-3500	47,2	3405	-8031	200															
201120	2243	-10775	236	-1500	44,1	4146	-8691	221	-3000	46,9	3394	-8002	206															
201125	2242	-10736	236	-1500	44,0	4185	-8702	221	-2300	46,6	3357	-7973	213															
201130	2241	-10697	236	-1500	43,9	4227	-8708	221	-1900	46,0	3322	-7956	217															
201135	2242	-10652	237	-1600	43,1	4257	-8765	221	-1500	45,6	3299	-7932	222															
201140	2239	-10605	238	-1700	42,9	4302	-8794	221	-1300	45,2	3284	-7907	225															
201145	2238	-10568	240	-1900	44,0	4369	-8730	221	-1500	44,8	3257	-7886	225															
201150	2237	-10528	243	-2200	43,9	4403	-8738	221	-600	44,5	3241	-7862	237															
201155	2237	-10490	246	-2500	44,5	4456	-8704	221	-400	44,2	3218	-7840	242															
201200	2236	-10450	247	-2600	44,6	4492	-8706	221	-200	43,9	3209	-7815	245															
201205	2235	-10409	249	-2800	44,6	4529	-8707	221	100	43,5	3187	-7792	250															
201210	2234	-10364	250	-2900	45,3	4569	-8649	221	200	43,0	3162	-7771	252															
201215	2233	-10325	251	-3000	45,5	4607	-8643	221	100	42,6	3139	-7751	252															
201220	2229	-10293	253	-3200	45,9	4624	-8590	221	1100	42,2	3105	-7735	264															
201225	2227	-10252	254	-3300	46,2	4658	-8571	221	900	41,9	3092	-7714	263															
201230	2237	-10203	255	-3400	46,5	4682	-8511	221	1600	41,3	3073	-7693	271															

201235	2236	-10163	256	-3500	46,7	4704	-8480	221	1700	41,0	3058	-7671	273																
201240	2236	-10122	258	-3700	46,8	4719	-8450	221	1500	40,7	3042	-7648	273																
201245	2235	-10083	261	-4100	46,7	4735	-8441	220	1200	40,3	3019	-7628	273																
201250	2234	-10044	263	-4200	47,0	4758	-8407	221	1100	39,9	2999	-7605	274																
201255	2233	-10003	266	-4500	47,1	4775	-8378	221	900	39,5	2971	-7586	275																
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202329	2117	-4824	280	-7700	51,8	3195	-7962	203						-800	28,3	2319	-6624	272						3400	70,2	2664	-9286	314
202334	2116	-4783	280	-7700	52,2	3166	-7956	203						-1100	29,4	2339	-6653	269						3700	71,3	2655	-9312	317
202339	2115	-4742	280	-7700	52,7	3147	-7953	203						-900	30,1	2402	-6647	271						3900	72,2	2647	-9333	319
202344	2114	-4701	280	-7700	53,1	3121	-7946	203						-600	31,2	2420	-6671	274						4000	73,2	2638	-9358	320

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Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO 15/12/2000

GLI ORARI SONO UTC
FREQUENZA 128.8 MHz

200445	AZA1798	Roma buonasera AZA1798 up level 200
200458	ACC	AZA1798 Roma buonasera squawk ident
	AZA1798	Ident
200511	ACC	AZA1798 Roma, radar contact, continue climb to flight level 240 and for your information your route is effecter by a lot of unknown traffic at unknown level
200529	AZA1798	Up 240, 1798 copied
200534	ACC	AZA1798 radar contact
	AZA1798	Radar contact
200635	AEL622	Roma buonasera AEL622 FL 330 to Palermo
	ACC	AEL622 Roma buonasera radar contact PAL-CAT/VOR and your route is effected by a lot of traffic, unknown traffic, at unknown level
	AEL622	Ok our route PAL-CAT/VOR and copied the traffic information AEL622
	ACC	Roger
200710	ACC	AZA1798 salga al livello di volo 280
	AZA1798	Sale a 280, 1798
200817	ACC	AZA1798 salga al livello di volo 280
	AZA1798	280 livello 1798
201037	AZA1798	La 1798 ce li abbiamo adesso ore 9

201049	ACC	AZA1798 abbiamo un traffico a sue ore 11 da nord-est verso sud-ovest, il livello che noi leggiamo dal Charlie 350, la distanza è di circa...
201232	ACC	AEL622 essential traffic at your 12 o'clock at FL ... same level from south to north distance 20 miles
	AEL622	Copied the traffic AEL622 ... what you want us to do AEL622?
	ACC	622 we suggest to ... stand-by
201309	ACC	AEL622 the traffic is now at 14 miles moving from left to right at 332
201322	AEL622	Roger 622 we have traffic on TCAS ...(incomprensibile)... this time leaving from our left to right thank you
201418	AEL622	Roma AEL622
	ACC	AEL622
	AEL622	Was that a military traffic ...(incomprensibile)...
	ACC	We suppose that this is a military traffic
	AEL622	Roger ok thanks a lot
201443	ACC	AEL622 another essential traffic at your one o'clock distance 5 miles and the mode C shows 301
	AEL622	Roger thanks 622 we ...(incomprensibile)...
201558	ACC	AEL622 other traffic at your two o'clock distance 8 miles from right to left at 346 the level and the mode C shows 346
	AEL622	Roger copied I have it on TCAS, 622
201642	ACC	AZA1798 traffico essenziale a sue ore 11 la distanza è di 12 miglia al livello di volo 280, il modo Charlie mostra 280
	AZA1798	E affermativo ce l'abbiamo sul TCAS tra un po' può darsi anche che facciamo un ..... scendiamo: TCAS descend AZA1798 TCAS descend down to level 260
	ACC	AZA1798 Roma Roger

201721	AEL622	Roma AEL622
	ACC	AEL622 now clear of traffic
	AEL622	622 thanks. I would like to know if (write) can report over to something has to be done this is unacceptable is it?
201739	AZA1798	1798 stiamo recuperando livello 280 eravamo in conflitto di traffico con il traffico ore 12
	ACC	AZA1798 copiato ora il traffico è a sue ore 4 distanza 2 miglia in allontanamento
	AZA1798	Si ho capito però noi facciamo una relazione su questo non mi sembra corretto
	ACC	Copiato
201805	AZA1798	Chi era il traffico in conflitto? Era un militare?
	ACC	That is unknown traffic mybe it is a military traffic in that zone
	AZA1798	Si vabbè che ci sono i militari però non ci devono mica venire addosso
	ACC	Lei ha ragione noi stiamo facendo il possibile non sappiano come come più di questo non sappiano che fare
	AZA1798	Si grazie comunque
201829	AEL622	Roma AEL622
	ACC	AEL622 Roma that is may be it is a military traffic in that zone and we don't know the traffic
	AEL622	Roger but is according danger situation running civil airline through military traffic it was an incident in air may-be 15 years ago there. We don't want this happen again so perhaps an investigation could be started for this
201905	AZA1798	And this is AZA1798 we are agree and we are going to write riport about this
	ACC	AZA1798 Roma Roger
201918	AEL622	ALITALIA can I speak you on 123.45
	AZA1798	Ok
202100	ACC	AZA1798 contact Roma radar 127.35 good day

	AZA1798	127.35.
202522	AEL622	AEL622 request descent please
	ACC	AEL622 roger start descent to FL 210
	AEL622	Descent FL 210 AEL622
202628	ACC	AEL622 continue descent to FL 110
	AEL622	Continue descent FL 110 AEL622
202815	ACC	AEL622 contact Catania 119.25 good day
	AEL622	119.25 AEL622 good night.

Gruppo Alitalia

AIR SAFETY REPORT

1. TYPE OF EVENT — TICK ALL THAT APPLY

ASR	AIRPROX/ATC	BIRD STRIKE	WAKE TURBULENCE	TCAS RA
☒	☒	☐	☐	☒

Authority Occurrence Number:

2. CAPTAIN ID NUMBER	CO-PILOT ID NUMBER	OTHER CREW ID NUMBER

3. DATE OF OCCURRENCE (D M Y)	4. TIME LOCAL/UTC	5. FLIGHT NR	6. ROUTE (FROM / TO / DIVERTED)	7. SQUAWK
15 / 12 / 00	DAY (NIGHT)	AZ 1798	PMO FCO	.1756

8. A/C TYPE	9. REGISTRATION	10. PASSENGERS/CREW	11. FUEL JETTISONED	12. ETOPS
MD 80	I-DAVW	86 / 5	/ KG	YES (NO)

13. ALTITUDE	14. SPEED / MACH NR	15. A/C WEIGHT	16. TECH LOG BOOK REF
FL. 280 / FT	M .77	53.800 KG	YES (NO)

17. FLIGHT PHASE

TOWING → PARKED → 18. AIRPORT + STAND → PUSH-BACK → TAXI-OUT → TAKE-OFF RUN → INITIAL CLIMB

CLIMB → (CRUISE) → 19. GEOG. POSITION SUD DI PNZ 45 NM → DESCENT → HOLDING → APPROACH → LANDING → TAXI-IN → STAND

20. MET	21. WX ACTUAL	22. SIGNIFICANT WX
IMC (VMC) ... km	WIND / VIS. km / CLOUD / TEMP °C ... QNH ...	MODERATE / SEVERE RAIN / SNOW / ICING / FOG / TURBULENCE HAIL / VOLCANIC ASH / WINDSHEAR
23. RUNWAY	**24. RUNWAY STATE** DRY / WET / ICE / SNOW / SLUSH / STANDING WATER RVR ...	**25. CONFIGURATION** A/P - A/T - GEAR - FLAP - SLAT - SPOILERS ....

26. SUMMARY (CONCISE DESCRIPTION OF THE EVENT) MANCATA COLLISIONE CON A/M IN ROTTA OPPOSTA. EFFETTUATA MANOVRA DI EVITAMENTO TCAS.

27. EVENT AND CAUSE (DETAILED DESCRIPTION OF THE EVENT AND ITS IMMEDIATE CAUSE)

DOPO IL DECOLLO DA PMO VENIAMO INFORMATI DAL RADAR DELLA PRESENZA LUNGO LA NOSTRA ROTTA DI AA/MM MILITARI SCONOSCIUTI A LIVELLI SCONOSCIUTI. A FL280, AUTORIZZATI A PROCEDERE A PNZ, 4 SUD DI TALEVOR, A 45 MIGLIA DI DISTANZA, CI VENIVA SEGNALATO UN TRAFFICO A ORE 12 IN OPPOSTA. POCO DOPO INTERVENIVA IL TCAS: "DESCENT NOW", "INCREASE RATE OF DESCENT", "CLIMB NOW", "CLEAR OF CONFLICT". IL TRAFFICO E' SFILATO A CIRCA 1,5 - 2 NM.

28. ACTIONS AND RESULTS (ACTIONS TAKEN, THEIR RESULT AND ANY SUBSEQUENT EVENTS)

DISINSERITO AUTOPILOTA E SEGUITE INDICAZIONI TCAS. INSEGUITO AL PRIMO RA IL TRAFFICO IN OPPOSTA HA PROBABILMENTE INIZIATO UNA DISCESA CONVERGENTE, CONFERMATA ANCHE DALLA NOSTRA SENSAZIONE VISIVA. DA CUI LA RA CONTRARIA "CLIMB NOW".

29. OTHER INFORMATION AND SUGGESTIONS FOR PREVENTATIVE ACTION:

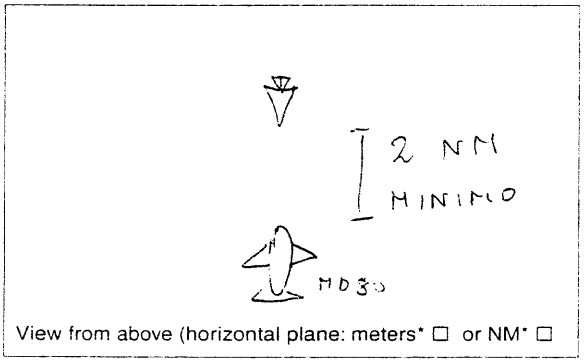
ABBIAMO ATTRAVERSATO UNA ZONA AD INTENSO TRAFFICO SCONOSCIUTO AL RADAR. NE ABBIAMO VISTI ALMENO CINQUE. ALTRI VELIVOLI IN VOLO NELLA ZONA HANNO LAMENTATO LA SITUAZIONE DI PERICOLO (AIR EUROPE 622) DOVUTA ALLA PRESENZA DI TALE TRAFFICO SCONOSCIUTO.

30.

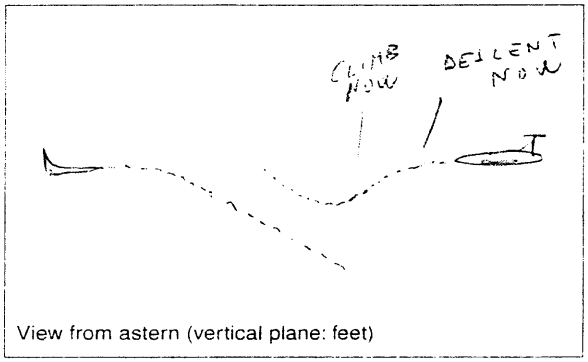
AIRPROX - ATC INCIDENT - TCAS RA - WAKE TURBULENCE - BIRD STRIKE

31. AIRPROX* / ~~ATC INCIDENT~~* (*delete as applicable) and/or TCAS RA

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right assuming YOU are at the centre of each diagram. Indicate appropriate scale.



View from above (horizontal plane: meters* ☐ or NM* ☐



View from astern (vertical plane: feet)

SEVERITY OF RISK	LOW / MED / (HIGH)
AVOIDING ACTION TAKEN	(YES) / NO
REPORTED TO ATC	128.8 - 127.35 ... UNIT
ATC INSTRUCTIONS ISSUED	✓
YOUR CALLSIGN	I42 179.8
FREQUENCY IN USE	128.8 - 127.35
HEADING	350 ... DEG
CLEARED ALTITUDE	FL 280

MINIMUM VERTICAL SEPARATION	300 ... FT C A
MINIMUM HORIZONTAL SEPARATION	1.5 M/NM*
TCAS ALERT	(RA) / TA / NONE
TYPE OF RA	DESCENT NOW / INCREASE RATE / CLIMB NOW
RA FOLLOWED	(YES) / NO (VERTICAL DEVIATION 800 FT)
WAS TCAS ALERT	(NECESSARY) / USEFUL / NUISANCE
DESCRIBE OVERLEAF:	
OTHER A/C TYPE MARKINGS, COLOUR, LIGHTING, CALLSIGN ETC.	

32. WAKE TURBULENCE

HEADING ... DEGTURNING LEFT / RIGHT / NO
POSITION ON GLIDESLOPE HIGH / LOW / ON
POSITION ON EXTENDED CENTRELINE LEFT / RIGHT / ON
CHANGE IN ATTITUDE PITCH ... ROLL ... YAW ... DEG
CHANGE IN ALTITUDE ... FT
WAS THERE BUFFET? YES / NO STICK SHAKE? YES / NO
WHAT MADE YOU SUSPECT WAKE TURBULENCE?

DESCRIBE ANY VERTICAL ACCELERATION

GIVE DETAILS OF PRECEDING A/C (TYPE, CALLSIGN ETC)

WERE YOU AWARE OF OTHER A/C BEFORE INCIDENT? YES/NO

33. BIRD STRIKE

TYPE OR SIZE OF BIRDS
NR SEEN 1 ☐ 2-10 ☐ 11-100 ☐ MORE ☐
NR STRUCK 1 ☐ 2-10 ☐ 11-100 ☐ MORE ☐
TIME DAWN ☐ DAY ☐ DUSK ☐ NIGHT ☐
DESCRIBE IMPACT POINTS AND DAMAGE OVERLEAF

FILING INSTRUCTIONS

FLIGHT CREW (Before Next Flight / ASAP)
FCO → CREW BRIEFING CENTER
All Other Stations → KK
KK
FAX to SVT (039)-(06)-6563-8316
(039)-(06)-6563-8354
or
IMMEDIATE SITA TELEX to FCOHBAZ Priority QU
COPY TELEX to STATION OF DEPARTURE
and
ORIGINAL to → Sicurezza di Sistema di Gruppo
SVT Palazzina NPU
Aeroporto "Leonardo da Vinci"
00050 FIUMICINO

34. ID OPERATORS

☐ AZ ☒ RD ☐ XM ☐ GJ ☐ _____

All reports are distributed & analysed using the BASIS System

SIGNATURE

RANK: CPT


039: 25: 54
039: 15: 54
039: 05: 54
012: 43: 36
012: 53: 36
013: 03: 36
AEL622
04667
20: 13: 20
00330 0448
AEL622
04667
20: 13: 35
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20: 13: 50
00330 0450
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20: 14: 05
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20: 18: 20
00330 0450

ENAV S.p.A.
Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

LISTA TRAFFICO AEL 622 DEL 15/12/2000

TIME	X1	Y1	CH AEL622	SEP.VER.AZA-TN974	DIST. AZA-TN974	X2	Y2	QT TN 974	SEP.VER.AZA-TN480	DIST. AZA-TN480	X3	Y3	QT TN 480	SEP.VER.AZA-TN523	DIST. AZA-TN523	X4	Y4	QT TN 523
201000	2333	-7017	330	-1100	43	2238	-9767	319	1100	56	2031	-10583	341	-33000	116			
201005	2338	-7055	330	-1200	43	2231	-9799	318	1100	56	2064	-10609	341	---	57	1923	-10680	---
201010	2341	-7096	330	-1000	43	2221	-9826	320	1100	55	2144	-10582	341	---	57	1913	-10712	---
201015	2343	-7134	330	-700	43	2202	-9857	323	1100	54	2202	-10584	341	---	57	1909	-10750	---
201020	2347	-7172	330	-500	43	2179	-9910	325	1100	54	2228	-10606	341	---	57	1899	-10783	---
201025	2349	-7212	330	-300	43	2165	-9942	327	1100	53	2261	-10617	341	-2900	57	1884	-10823	301
201030	2352	-7249	330	-200	43	2150	-9970	328	1100	53	2302	-10611	341	-2900	57	1890	-10852	301
201035	2357	-7287	330	-100	42	2132	-9964	329	1100	52	2338	-10612	341	-2900	57	1898	-10888	301
201040	2360	-7326	330	0	42	2118	-9993	330	1100	52	2367	-10628	341	-2900	57	1897	-10923	301
201045	2360	-7366	330	400	42	2093	-10012	334	1100	51	2423	-10599	341	-2900	57	1930	-10963	301
201050	2362	-7406	330	500	41	2076	-10039	335	1100	50	2457	-10604	341	-2900	57	1935	-10997	301
201055	2363	-7447	330	700	41	2055	-10065	337	1100	50	2511	-10620	341	-2900	56	1969	-11025	301
201100	2366	-7488	330	800	41	2035	-10098	338	1100	48	2554	-10563	341	-2900	56	1977	-11059	301
201105	2369	-7527	330	1000	41	2017	-10126	340	1100	47	2588	-10554	341	-2900	56	1994	-11090	301
201110	2371	-7566	330	1000	41	2003	-10139	340	1100	46	2600	-10496	341	-2900	55	2048	-11100	301
201115	2373	-7608	330	1100	40	1985	-10166	341	1100	45	2630	-10479	341	-2900	55	2065	-11130	301
201120	2378	-7648	330	1100	40	1968	-10202	341	1100	44	2663	-10469	341	-2900	55	2111	-11138	301
201125	2380	-7687	330	1100	40	1951	-10229	341	1100	43	2668	-10408	341	-2900	54	2161	-11158	301
201130	2384	-7727	330	1200	40	1930	-10258	342	1100	42	2691	-10383	341	-2900	54	2206	-11161	301
201135	2386	-7765	330	1200	40	1911	-10293	342	1100	41	2717	-10363	341	-2900	53	2235	-11182	301
201140	2389	-7806	330	1400	40	1887	-10326	344	1100	39	2710	-10292	341	-2900	53	2284	-11166	301
201145	2390	-7848	330	1500	40	1870	-10357	345	1100	38	2722	-10261	341	-2900	52	2313	-11181	301
201150	2399	-7886	330	1600	40	1855	-10386	346	1100	37	2743	-10236	341	-2900	50	2386	-11084	301
201155	2402	-7925	330	1700	40	1830	-10418	347	1100	36	2702	-10181	341	-2900	49	2421	-11079	301
201200	2403	-7965	330	2000	40	1820	-10445	350	1100	35	2713	-10152	341	-2900	48	2435	-11029	301
201205	2405	-8005	330	2000	40	1804	-10476	350	1100	33	2683	-10112	341	-2900	47	2469	-11017	301
201210	2407	-8047	330	2000	40	1791	-10520	350	1100	32	2683	-10080	341	-2900	46	2486	-10960	301
201215	2409	-8086	330	2000	40	1774	-10551	350	1100	31	2688	-10050	341	-2900	45	2517	-10940	301
201220	2413	-8127	330	2000	40	1779	-10607	350	1000	30	2662	-10014	340	-2900	43	2504	-10881	301
201225	2416	-8167	330	2000	40	1766	-10642	350	800	29	2659	-9982	338	-2900	42	2528	-10854	301
201230	2419	-8205	330	2000	40	1774	-10672	350	400	28	2630	-9960	334	-2900	41	2517	-10800	301
201235	2421	-8246	330	2000	40	1765	-10707	350	200	26	2618	-9927	332	-2900	39	2525	-10758	301
201240	2423	-8286	330	2000	40	1778	-10745	350	200	25	2618	-9892	332	-2900	38	2527	-10710	301
201245	2424	-8323	330	2000	40	1838	-10794	350	200	24	2596	-9872	332	-2900	36	2527	-10642	301
201250	2427	-8363	330	2000	40	1842	-10830	350	200	23	2588	-9843	332	-2900	35	2525	-10585	301
201255	2428	-8404	330	2000	39	1895	-10833	350	100	22	2574	-9806	331	-3000	33	2527	-10512	300
201300	2430	-8447	330	2000	39	1937	-10863	350	0	21	2550	-9771	330	-3000	31	2525	-10453	300
201305	2433	-8487	330	2000	38	1989	-10886	350	0	20	2541	-9739	330	-3000	30	2524	-10392	300
201310	2436	-8527	330	2000	38	2011	-10915	350	0	19	2529	-9708	330	-3000	28	2522	-10333	300
201315	2439	-8568	330	1900	37	2078	-10909	349	100	18	2487	-9690	331	-3000	27	2520	-10273	300
201320	2439	-8607	330	1900	36	2121	-10911	349	100	17	2462	-9668	331	-3000	25	2519	-10213	300
201325	2440	-8646	330	1900	35	2189	-10880	349	100	16	2434	-9646	331	-3000	24	2517	-10153	300
201330	2443	-8688	330	1900	34	2232	-10878	349	200	15	2397	-9637	332					
201335	2446	-8728	330	1900	34	2275	-10867	349	200	14	2372	-9617	332					
201340	2449	-8768	330	1800	32	2324	-10819	348	300	14	2329	-9638	333					
201345	2452	-8809	330	1800	31	2352	-10799	348	300	13	2301	-9627	333					
201350	2453	-8849	330	1800	30	2390	-10795	348	300	12	2275	-9612	333					
201355	2456	-8892	330	1900	29	2408	-10729	349	500	11	2228	-9582	335					

AEL622.xls

201400	2458	-8932	330	2000	28	2439	-10710	350	500	11	2194	-9570	335					
201405	2460	-8973	330	2000	26	2420	-10624	350	600	10	2161	-9564	336					
201410	2463	-9009	330	2200	24	2410	-10567	352	600	10	2125	-9584	336					
201415	2465	-9049	330	2100	23	2412	-10512	351	600	10	2083	-9587	336					
201420	2468	-9087	330	2100	21	2400	-10459	351	600	10	2046	-9608	336					
201425	2470	-9126	330	2000	20	2411	-10420	350	600	10	2023	-9602	336					
201430	2474	-9164	330	2000	19	2411	-10356	350	800	10	1998	-9611	338					
201435	2477	-9204	330	2000	17	2403	-10307	350	800	10	1967	-9634	338					
201440	2483	-9244	330	2000	16	2392	-10270	350	800	11	1936	-9657	338					
201445	2486	-9284	330	2000	15	2396	-10229	350	800	11	1905	-9663	338					
201450	2488	-9323	330	2000	14	2405	-10187	350	900	11	1882	-9708	339					
201455	2490	-9363	330	2000	12	2407	-10145	350	1100	11	1857	-9738	341					
201500	2492	-9402	330	2100	11	2409	-10101	351	1100	12	1846	-9781	341					
201505	2498	-9440	330	2100	10	2399	-10059	351	1200	12	1818	-9808	342					
201510	2498	-9479	330	2100	9	2369	-10037	351	1300	12	1810	-9840	343					
201515	2500	-9521	330	2100	8	2360	-9999	351	1300	12	1793	-9869	343					
201520	2502	-9561	330	2100	7	2357	-9961	351	1300	12	1782	-9903	343					
201525	2506	-9601	330	2100	6	2355	-9922	351	1400	13	1763	-9930	344					
201530	2508	-9639	330	2100	5	2346	-9884	351	1300	13	1779	-9984	343					
201535	2510	-9678	330	2100	4	2342	-9846	351	1300	13	1764	-10014	343					
201540	2512	-9721	330	2100	3	2339	-9807	351	1400	13	1768	-10052	344					
201545	2516	-9768	330	2100	3	2330	-9754	351	1400	12	1811	-10107	344					
201550	2519	-9804	330	2200	3	2326	-9713	352	1400	12	1809	-10141	344					
201555	2521	-9844	330	2200	4	2322	-9674	352	1400	11	1871	-10163	344					
201600	2524	-9878	330	2100	5	2318	-9654	351	1400	11	1878	-10197	344					
201605	2526	-9917	330	2100	6	2303	-9612	351	1400	11	1902	-10219	344					
201610	2529	-9957	330	2100	7	2300	-9574	351	1500	9	2001	-10216	345					
201615	2532	-9997	330	2200	8	2290	-9533	352	1500	9	2020	-10244	345					
201620	2534	-10037	330	2200	9	2284	-9494	352	1500	9	2040	-10270	345					
201625	2538	-10077	330	2200	11	2280	-9455	352	1600	6	2168	-10216	346					
201630	2540	-10117	330	2200	12	2271	-9418	352	1600	6	2203	-10219	346					
201635	2543	-10157	330	2200	13	2254	-9383	352	1700	5	2239	-10222	347					
201640	2545	-10197	330	2300	14	2233	-9349	353	1700	4	2299	-10211	347					
201645	2549	-10237	330	2200	15	2210	-9319	352	1800	3	2337	-10213	348					
201650	2549	-10283	330	2200	17	2180	-9287	352	1800	3	2384	-10145	348					
201655	2551	-10322	330	2200	18	2155	-9263	352	1800	4	2420	-10135	348					
201700	2546	-10362	330	2200	19	2131	-9234	352	1900	4	2458	-10105	349					
201705	2548	-10392	330	2200	20	2098	-9226	352	1900	5	2476	-10054	349					
201710	2545	-10434	330	2200	21	2052	-9216	352	1900	6	2509	-10034	349					
201715	2548	-10474	330	2200	22	2028	-9198	352	2000	7	2543	-10014	350					
201720	2551	-10514	330	2200	22	1995	-9193	352	2000	9	2555	-9959	350					
201725	2554	-10554	330	2200	23	1966	-9187	352	2000	10	2582	-9931	350					
201730	2550	-10596	330	2200	24	1927	-9181	352	2000	11	2583	-9884	350					
201735	2552	-10635	330	2200	25	1886	-9196	352	2100	13	2546	-9810	351					
201740	2556	-10674	330	2200	26	1858	-9197	352	2100	14	2567	-9778	351					
201745	2559	-10714	330	2200	26	1821	-9212	352	2100	16	2526	-9720	351					
201750	2565	-10755	330	2200	27	1787	-9224	352	2100	17	2529	-9685	351					
201755	2567	-10795	330	2200	28	1759	-9228	352	2100	18	2539	-9649	351					
201800	2569	-10842	330	2200	28	1735	-9271	352	2200	19	2484	-9609	352					
201805	2571	-10884	330	2200	28	1707	-9280	352	2200	21	2475	-9574	352					
201810	2575	-10925	330	2200	29	1678	-9327	352	2200	22	2474	-9539	352					
201815	2578	-10974	330	2200	29	1651	-9331	352	2200	23	2402	-9503	352					
201820	2581	-11016	330	2200	30	1636	-9360	352	2200	24	2391	-9470	352					
201825	2582	-11048	330	2200	30	1633	-9400	352	2200	25	2337	-9474	352					
201830	2585	-11075	330	2200	30	1627	-9443	352	2200	26	2313	-9448	352					
201835	2594	-11112	330	2200	30	1621	-9465	352	2200	27	2284	-9408	352					
201840	2597	-11153	330	2300	30	1634	-9521	353	2200	28	2240	-9389	352					
201845	2598	-11193	330	2300	30	1615	-9554	353	2200	29	2214	-9357	352					

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201850	2601	-11233	330	2300	30	1605	-9588	353	2200	30	2188	-9376	352					
201855	2603	-11274	330	2300	30	1616	-9632	353	2200	30	2132	-9409	352					
201900	2605	-11315	330	2300	30	1609	-9667	353	2200	31	2102	-9394	352					
201905	2607	-11355	330	2400	30	1619	-9707	354	2200	32	2074	-9381	352					
201910	2612	-11401	330	2400	30	1596	-9739	354	2200	32	2031	-9442	352					
201915	2614	-11442	330	2400	31	1596	-9774	354	2200	32	1997	-9474	352					
201920	2604	-11499	330	2400	31	1599	-9822	354	2200	32	1965	-9524	352					
201925	2607	-11539	330	2400	31	1614	-9858	354	2200	33	1946	-9553	352					
201930	2609	-11581	330	2400	31	1610	-9890	354	2200	33	1924	-9574	352					
201935	2613	-11622	330	2400	31	1621	-9932	354	2200	33	1897	-9621	352					
201940	2612	-11648	330	2400	30	1619	-9968	354	2200	33	1878	-9648	352					
201945	2616	-11688	330	2400	31	1617	-10003	354	2300	34	1869	-9677	353					
201950	2613	-11724	330	2400	31	1624	-10022	354	2200	33	1865	-9719	352					
201955	2614	-11765	330	2400	31	1623	-10058	354	2200	34	1850	-9750	352					
202000	2612	-11814	330	2400	31	1626	-10114	354	2100	34	1835	-9793	351					

AEL622.xls

ENAV S.p.A.
Centro Regionale Assistenza al Volo – Roma
Via Appia Nuova 1491 – 00178 Roma tel. 0679086206

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO 15/12/2000

GLI ORARI SONO UTC
FREQUENZA 128.8 MHz

200445	AZA1798	Roma buonasera AZA1798 up level 200
200458	ACC	AZA1798 Roma buonasera squawk ident
	AZA1798	Ident
200511	ACC	AZA1798 Roma, radar contact, continue climb to flight level 240 and for your information your route is effecter by a lot of unknown traffic at unknown level
200529	AZA1798	Up 240, 1798 copied
200534	ACC	AZA1798 radar contact
	AZA1798	Radar contact
200635	AEL622	Roma buonasera AEL622 FL 330 to Palermo
	ACC	AEL622 Roma buonasera radar contact PAL-CAT/VOR and your route is effected by a lot of traffic, unknown traffic, at unknown level
	AEL622	Ok our route PAL-CAT/VOR and copied the traffic information AEL622
	ACC	Roger
200710	ACC	AZA1798 salga al livello di volo 280
	AZA1798	Sale a 280, 1798
200817	ACC	AZA1798 salga al livello di volo 280
	AZA1798	280 livello 1798
201037	AZA1798	La 1798 ce li abbiamo adesso ore 9

201049	ACC	AZA1798 abbiamo un traffico a sue ore 11 da nord-est verso sud-ovest, il livello che noi leggiamo dal Charlie 350, la distanza è di circa...
201232	ACC	AEL622 essential traffic at your 12 o'clock at FL ... same level from south to north distance 20 miles
	AEL622	Copied the traffic AEL622 ... what you want us to do AEL622?
	ACC	622 we suggest to ... stand-by
201309	ACC	AEL622 the traffic is now at 14 miles moving from left to right at 332
201322	AEL622	Roger 622 we have traffic on TCAS ...(incomprensibile)... this time leaving from our left to right thank you
201418	AEL622	Roma AEL622
	ACC	AEL622
	AEL622	Was that a military traffic ...(incomprensibile)...
	ACC	We suppose that this is a military traffic
	AEL622	Roger ok thanks a lot
201443	ACC	AEL622 another essential traffic at your one o'clock distance 5 miles and the mode C shows 301
	AEL622	Roger thanks 622 we ...(incomprensibile)...
201558	ACC	AEL622 other traffic at your two o'clock distance 8 miles from right to left at 346 the level and the mode C shows 346
	AEL622	Roger copied I have it on TCAS, 622
201642	ACC	AZA1798 traffico essenziale a sue ore 11 la distanza è di 12 miglia al livello di volo 280, il modo Charlie mostra 280
	AZA1798	E affermativo ce l'abbiamo sul TCAS tra un po' può darsi anche che facciamo un ..... scendiamo: TCAS descend AZA1798 TCAS descend down to level 260
	ACC	AZA1798 Roma Roger

201721	AEL622	Roma AEL622
	ACC	AEL622 now clear of traffic
	AEL622	622 thanks. I would like to know if (write) can report over to something has to be done this is unacceptable is it?
201739	AZA1798	1798 stiamo recuperando livello 280 eravamo in conflitto di traffico con il traffico ore 12
	ACC	AZA1798 copiato ora il traffico è a sue ore 4 distanza 2 miglia in allontanamento
	AZA1798	Si ho capito però noi facciamo una relazione su questo non mi sembra corretto
	ACC	Copiato
201805	AZA1798	Chi era il traffico in conflitto? Era un militare?
	ACC	That is unknown traffic mybe it is a military traffic in that zone
	AZA1798	Si vabbè che ci sono i militari però non ci devono mica venire addosso
	ACC	Lei ha ragione noi stiamo facendo il possibile non sappiano come come più di questo non sappiano che fare
	AZA1798	Si grazie comunque
201829	AEL622	Roma AEL622
	ACC	AEL622 Roma that is may be it is a military traffic in that zone and we don't know the traffic
	AEL622	Roger but is according danger situation running civil airline through military traffic it was an incident in air may-be 15 years ago there. We don't want this happen again so perhaps an investigation could be started for this
201905	AZA1798	And this is AZA1798 we are agree and we are going to write riport about this
	ACC	AZA1798 Roma Roger
201918	AEL622	ALITALIA can I speak you on 123.45
	AZA1798	Ok
202100	ACC	AZA1798 contact Roma radar 127.35 good day

	AZA1798	127.35.
202522	AEL622	AEL622 request descent please
	ACC	AEL622 roger start descent to FL 210
	AEL622	Descent FL 210 AEL622
202628	ACC	AEL622 continue descent to FL 110
	AEL622	Continue descent FL 110 AEL622
202815	ACC	AEL622 contact Catania 119.25 good day
	AEL622	119.25 AEL622 good night.

05-MAR-2001 16:54 P.02/02

AirEurope
Voyage and Duty Hour Report

Date	Sub-charter Code	Number
15/12/00		51865

For all non-flying duty, complete boxes numbered 1 & 2

A/C Reg.	Flight No.	From	To	Delay time	reas.	time	reas.	time	reas.	Actual Chock Time ATD	ATA	Total	Flight Time Take off	Landing	Total
KZ	606	MXP	BRI							1400	1540	0140	1412	1526	0114
KZ	613	BRI	LIN	10	P					1630	1820	0150	1650	1809	0119
KZ	622	LIN	CTA							1905	2050	0155	1915	2044	0129

Low Vis Approaches	Leg	Category	RVR	Autoland
Low Vis Approaches	Leg	Category	RVR	Autoland

Air Hold. Time	LDG	BY	APP	TYPE	FUEL (KGS) Min. Req. (1000)	Extra-Fuel (1000)	Extra-Fuel Reasons	Passengers Adult Children	Infant	Freight Kgs (1000)	Z.F.W. Kgs (1000)	T.O.W. Kgs (1000)
	2		VIS		67	38	A	61			502	605
	2		VIS		63			137	2		570	633
	1		VIS		72	48	A	110			547	665

Extra-Fuel Reasons	
Tankering Policy	A
Anti-Ice	B
Cat. II/III App. Allowan.	C
Route Weather	D
Arrival Weather	E
Off Level	F
Re-Route	G
APU ON in flight	H
Other (Specify in Remarks)	Y

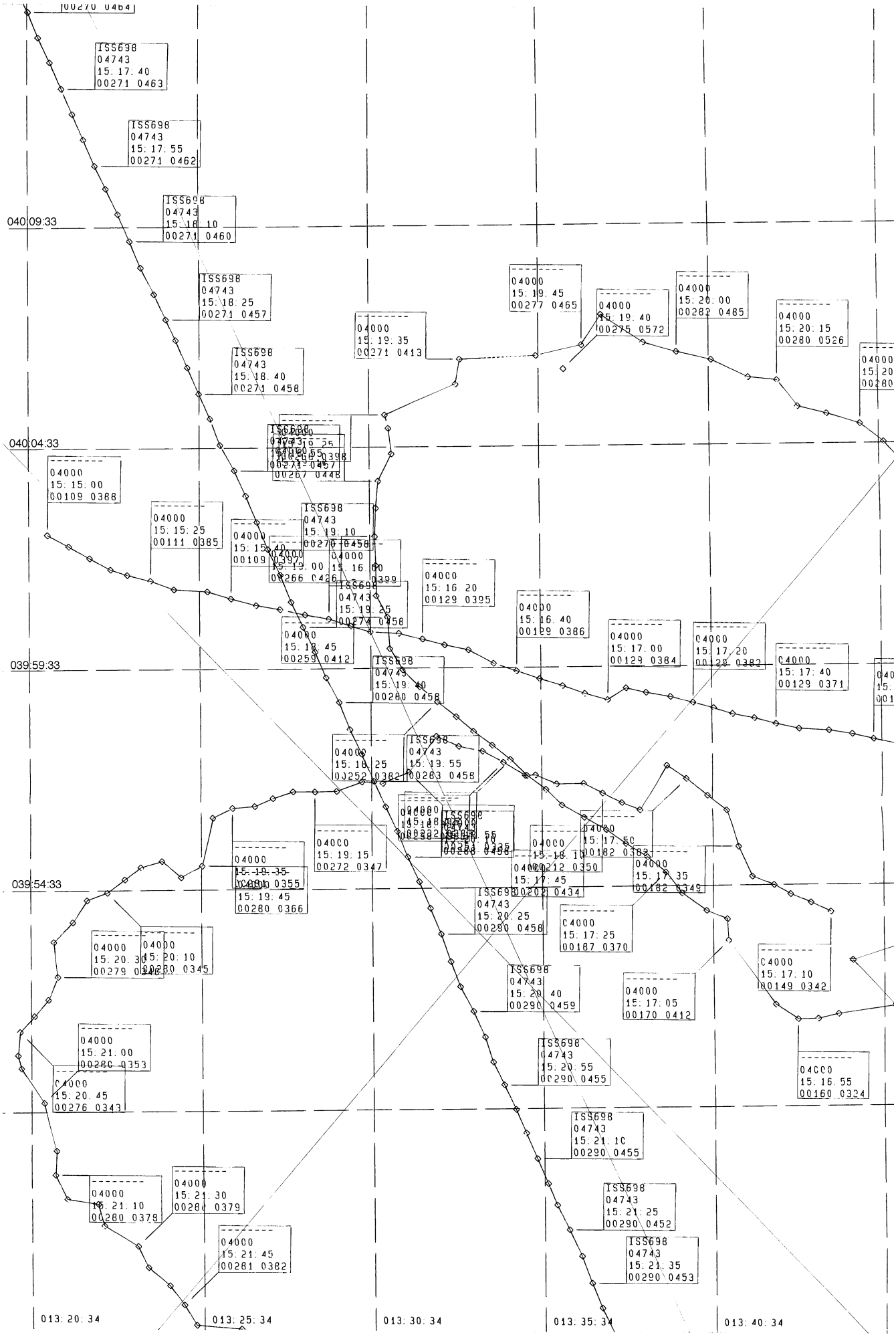
S/By Start Time		Name	Company nr.	Duty Times ON Day	Time	OFF Day	Time	Flight Time	Duty Time	Minimum Rest. Req.	Time Next Available Day	Next Time
	1		✓	15	1240	15	2120	0525	0840	1050	16	0810
	2		3288	↓		↓		↓	↓			↓
	3											
	4											
	A		526									
	B		1093									
	C		3331									
	D		3510	↓		↓		↓	↓			↓
	E											
	F											
	G											
	H											
	L											
	M											

Nr.	REMARKS
*	SECTOR 3. (AEL 622).
	PLEASE FORWARD THIS TO D.O.V AIR EUROPE AND VOLARE.
	DURING OUR FLIGHT FROM LIN – CTA WE WERE TOLD BY ROME ATC THAT ON OUR ROUTE SOUTH OF PNZ THERE WAS UNIDENTIFIED MILITARY TRAFFIC OPERATING AT ALL LEVELS. WE WERE TOLD "NO RADAR SERVICE AVAILABLE. WHAT ARE YOUR INTENTIONS?" THE OPTION GIVEN WAS TO GO DIRECT TO PAL – CAT VOR. APPROX' 100NM NORTH PAL SEVERAL A/C SEEN ON TCAS AT ODD LEVELS. ROME TOLD US OF DIFFERENT TRAFFIC ONLY 1000FT AWAY. ANOTHER A/C ALITALIA HAD A TCAS RA DESCENT. A VERY STRESSFUL FLIGHT. ROME DID NOT KNOW WHO THE MILITARY TRAFFIC WERE! PLEASE INVESTIGATE!! WE DO NOT WANT ANOTHER 'USTICA' INCIDENT.
	Captain's Signature

Distribut. Sect.

Delay Reasons
A = ATC
B = Bags/Loading
C = Catering
D = Ramp-Document.
E = Aircr. Cleaning
F = Flight-Document.
G = Check-in
H = Late aircraft arr.
L = Late Crew
P = Pax Boarding
R = Refuelling
S = Security
T = Tech
W = Weather
X = Others (Specify in Remarks)

TOTALE P.01
TOTALE P.02


040:09:33
040:04:33
039:59:33
039:54:33
013: 20: 34
013: 25: 34
013: 30: 34
013: 35: 34
013: 40: 34

E.N.A.V. S.p.A.
Roma ACC - Via Appia Nuova, 1491 - 00178 ROMA Tel. 0679086206

LISTA DEL TRAFFICO ISS 698 DEL 15/12/2000

TIME	X1	Y1	CHISS698	SEP.VER.ISS-TN174	DIST. ISS-TN174	X2	Y2	QT TN174	SEP.VER.ISS-TN182	DIST. ISS-TN182	X3	Y3	QT TN 182
151710	3178	-5865	270	-9900	28	4243	-7285	171	-12100	29	4390	-7273	149
151715	3195	-5903	270	-9900	27	4213	-7273	171	-12100	28	4362	-7260	149
151720	3211	-5941	270	-8600	25	4177	-7248	184	-10600	27	4333	-7248	164
151725	3228	-5976	270	-8300	24	4154	-7218	187	-10100	26	4309	-7235	169
151730	3243	-6013	270	-7600	23	4127	-7196	194	-10400	25	4278	-7223	166
151735	3260	-6049	271	-6900	22	4096	-7177	202	-8900	24	4258	-7180	182
151740	3277	-6087	271	-6900	21	4068	-7157	202	-8900	22	4241	-7127	182
151745	3293	-6124	271	-6900	20	4036	-7139	202	-8900	21	4213	-7105	182
151750	3309	-6161	271	-5500	19	4004	-7121	216	-8900	20	4182	-7081	182
151755	3326	-6199	271	-4700	17	3981	-7098	224	-7400	19	4154	-7062	197
151800	3342	-6232	271	-4300	16	3954	-7078	228	-7400	19	4116	-7128	197
151805	3360	-6269	271	-3900	15	3930	-7055	232	-5900	17	4090	-7117	212
151810	3377	-6308	271	-3100	14	3904	-7034	240	-5900	16	4062	-7103	212
151815	3393	-6346	271	-2800	13	3877	-7014	243	-5900	15	4035	-7089	212
151820	3412	-6384	271	-2600	12	3852	-6993	245	-4600	14	3996	-7090	225
151825	3429	-6421	271	-1900	11	3825	-6972	252	-4600	13	3966	-7077	225
151830	3443	-6451	271	-1700	10	3799	-6950	254	-3300	13	3951	-7078	238
151835	3460	-6490	271	-1500	8	3774	-6926	256	-3300	11	3920	-7059	238
151840	3477	-6528	271	-1200	7	3755	-6895	259	-3300	10	3890	-7043	238
151845	3494	-6564	271	-1200	6	3751	-6850	259	-2000	9	3856	-7036	251
151850	3509	-6602	270	-700	5	3735	-6819	263	-1900	8	3824	-7022	251
151855	3530	-6639	271	-700	4	3734	-6775	264	-2000	8	3785	-7074	251
151900	3547	-6676	271	-500	3	3732	-6733	266	-900	7	3746	-7091	262
151905	3563	-6714	271	-600	3	3733	-6692	265	-900	6	3716	-7089	262
151910	3579	-6753	270	-300	3	3736	-6653	267	200	6	3680	-7103	272
151915	3597	-6790	271	-400	4	3755	-6613	267	100	5	3649	-7104	272
151920	3613	-6829	273	-600	4	3750	-6576	267	-100	4	3618	-7104	272
151925	3630	-6865	274	-600	5	3745	-6557	268	700	4	3589	-7114	281
151930	3648	-6901	277	-700	7	3847	-6511	270	400	4	3563	-7126	281
151935	3664	-6938	278	-700	8	3853	-6475	271	300	4	3531	-7129	281
151940	3683	-6974	280	-400	9	3962	-6469	276	0	4	3503	-7143	280
151945	3699	-7013	282	-500	10	4027	-6453	277	-200	5	3488	-7213	280
151950	3716	-7049	282	-100	11	4054	-6409	281	-300	5	3458	-7230	279
151955	3734	-7088	283	0	12	4115	-6449	283	-300	5	3431	-7207	280
152000	3751	-7125	285	-300	12	4163	-6462	282	-500	6	3401	-7216	280
152005	3768	-7161	287	-400	13	4213	-6473	283	-700	6	3378	-7234	280
152010	3784	-7198	288	-800	13	4266	-6498	280	-800	7	3353	-7253	280
152015	3801	-7234	291	-1100	14	4307	-6502	280	-1100	7	3324	-7264	280
152020	3817	-7272	291	-1200	14	4337	-6540	279	-1200	8	3304	-7296	279
152025	3833	-7309	290	-1000	15	4379	-6550	280	-1100	9	3277	-7325	279
152030	3847	-7349	290	-1000	15	4428	-6564	280	-1100	9	3283	-7375	279
152035	3861	-7385	290	-1000	16	4463	-6590	280	-1100	9	3270	-7408	279
152040	3880	-7421	290	-1000	16	4489	-6619	280	-1300	10	3250	-7432	277
152045	3897	-7458	290	-1000	16	4525	-6638	280	-1400	10	3229	-7455	276
152050	3909	-7494	290	-1000	16	4558	-6669	280	-1100	11	3226	-7489	279
152055	3925	-7527	290	-1000	17	4592	-6692	280	-1000	11	3231	-7508	280
152100	3942	-7563	290	-1000	17	4621	-6717	280	-1000	11	3265	-7558	280
152105	3957	-7597	290	-1000	17	4649	-6747	280	-1000	11	3283	-7627	280
152110	3973	-7634	290	-1000	17	4683	-6769	280	-1000	11	3282	-7662	280
152115	3989	-7670	290	-1000	18	4715	-6793	280	-1100	11	3299	-7697	279
152120	4002	-7701	290	-1000	18	4742	-6819	280	-1100	10	3343	-7704	279

1265.xls

TIME	X1	Y1	CHISS698	SEP.VER.ISS-TN174	DIST. ISS-TN174	X2	Y2	QT TN174	SEP.VER.ISS-TN182	DIST. ISS-TN182	X3	Y3	QT TN 182
152125	4020	-7737	290	-1000	18	4772	-6845	280	-1000	10	3352	-7735	280
152130	4038	-7775	290	-1000	19	4803	-6868	280	-1000	10	3400	-7764	280
152135	4053	-7814	290	-1000	19	4835	-6889	280	-1000	10	3415	-7795	280
152140	4068	-7850	290	-1000	19	4868	-6911	280	-1000	10	3446	-7821	280
152145	4088	-7890	290	-1000	20	4896	-6935	280	-900	10	3467	-7849	281
152150	4103	-7926	290	-1000	20	4930	-6958	280	-900	10	3485	-7878	281
152155	4121	-7960	290	-1000	20	4967	-6977	280	-900	9	3549	-7883	281
152200	4137	-7997	290	-1000	21	5007	-6994	280	-900	9	3575	-7909	281
152205	4153	-8029	290	-1000	21	5038	-7024	280	-800	9	3606	-7929	282
152210	4169	-8066	290	-1000	21	5069	-7045	280	-800	8	3648	-7927	282
152215	4187	-8100	290	-1000	21	5090	-7067	280	-800	8	3701	-7905	282
152221	4202	-8137	290	-1000	22	5120	-7091	280	-800	8	3738	-7911	282
152226	4217	-8175	290	-1000	22	5140	-7121	280	-800	8	3774	-7912	282
152231	4233	-8209	290	-1000	22	5168	-7147	280	-800	8	3809	-7919	282
152236	4248	-8247	290	-1000	22	5197	-7171	280	-800	8	3850	-7920	282
152241	4265	-8284	290	-1000	23	5224	-7197	280	-800	8	3891	-7910	282
152246	4280	-8319	290	-1000	24	5290	-7198	280	-800	8	3928	-7914	282
152251	4297	-8356	290	-1000	24	5319	-7216	280	-800	9	3969	-7912	282
152256	4317	-8392	290	-1000	24	5350	-7239	280	-800	9	4002	-7915	282
152301	4333	-8427	290	-1000	25	5382	-7260	280	-800	9	4038	-7917	282
152306	4350	-8466	290	-1000	25	5413	-7280	280	-800	10	4079	-7918	282
152311	4366	-8503	290	-1000	25	5435	-7301	280	-800	10	4123	-7919	282
152316	4383	-8540	290	-1000	25	5465	-7324	280	-800	10	4159	-7926	282
152321	4399	-8577	290	-1000	26	5502	-7339	280	-800	11	4199	-7922	282
152326	4411	-8612	290	-1000	26	5535	-7360	280	-800	11	4237	-7923	282
152331	4427	-8650	290	-1000	27	5560	-7384	280	-800	12	4271	-7923	282
152336	4443	-8687	290	-1000	27	5590	-7407	280	-800	12	4308	-7923	282
152341	4454	-8721	290	-1000	27	5627	-7424	280	-800	13	4345	-7923	282
152346	4471	-8758	290	-1000	28	5658	-7443	280	-800	13	4382	-7921	282
152351	4490	-8797	290	-1000	28	5678	-7470	280	-800	14	4419	-7914	282
152356	4506	-8834	290	-1000	28	5706	-7493	280	-800	14	4458	-7913	282
152401	4523	-8872	290	-1000	28	5723	-7505	280	-800	15	4491	-7902	282
152406	4539	-8908	290	-1000	29	5749	-7526	280	-800	16	4530	-7900	282
152411	4557	-8945	290	-1000	30	5830	-7506	280	-800	16	4569	-7898	282
152416	4573	-8985	290	-1000	31	5867	-7516	280	-800	17	4606	-7894	282
152421	4589	-9027	290	-1000	31	5901	-7531	280	-800	18	4644	-7892	282
152426	4606	-9053	290	-1100	32	5944	-7521	279	-800	18	4681	-7886	282
152431	4622	-9090	290	-1100	32	5979	-7533	279	-800	19	4718	-7885	282
152436	4637	-9125	290	-1600	33	6014	-7546	274	-800	19	4753	-7885	282
152441	4654	-9154	290	-1900	33	6053	-7541	271	-800	20	4791	-7884	282
152446	4669	-9189	290	-2100	34	6088	-7549	269	-800	21	4830	-7881	282
152451	4685	-9235	290	-2300	35	6124	-7559	267	-800	21	4866	-7883	282
152456	4701	-9273	290	-2500	35	6145	-7563	265	-800	22	4903	-7881	282

1265.xls

E.N.A.V. S.p.A.

Roma ACC –Via Appia Nuova, 1491 – 00178 ROMA Tel. 0679086206
Il Responsabile

STRALCIO DELLE COMUNICAZIONI RADIOTELEFONICHE DI ROMA ACC DEL GIORNO 15/12/2000

GLI ORARI SONO UTC
FREQUENZA 127.35 MHz

ORARIO	STAZIONE	TESTO
150616	ISS698	Roma buonasera Merair 698
	ACC	Buonasera Merair 698 under Radar control
	ISS698	698
151743	ACC	Merair 698 Roma
	ISS698	698 avanti
	ACC	Merair 698 osserviamo un traffico sconosciuto che dovrebbe essere in salita di fronte a lei proprio ore 12 circa 10 miglia in opposta direzione lei ce l'ha sul TCAS
	ISS698	Affermativo ce l'abbiamo sul TCAS
	ACC	OK un traffico sconosciuto non abbiamo idea di chi sia e sta praticamente volando verso di lei
	ISS698	Eh..in effetti lo vediamo che sta avvicinandosi
	ACC	Meridiana 698 se lei può intraprendere qualunque azione a sua discrezione
	ISS698	OK grazie
151833	ISS698	Deve salire 697, può salire a 290?
	ACC	Affermativo 698
151854	ACC	Meridiana 698 osserva i traffici? Ancora ce ne uno davanti a lei è circa ecco la sta attraversando da destra a si... da sinistra a destra
	ISS698	Si lo osserviamo sul TCAS però non riusciamo a vederli ah..ecco adesso li vediamo sono aerei militari
	ACC	Ricevuto ci conferma che tipo? F14?
	ISS698	E guardi da qui non è possibile è troppo lontano, comunque non mi sembra un Tornado
	ACC	Ricevuto leggo una quota 280
	ISS698	La nostra?
	ACC	E' quella del... dell'aereo

	ISS698	Ah.. certo sì sì ecco bene
152047	ACC	Merair 698 Roma
	ISS698	698 avanti
	ACC	Si lei intende riportare l'accaduto
	ISS698	Affermativo
	ACC	OK ricevuto infatti. Il traffico che lei ha attraversato da sinistra a destra proprio alle sue ore uno che poi abbiamo letto a 280, e sta ancora a 280 e sta tornando verso di lei ancora a 280 e da sinistra verso destra questa volta circa 10 miglia alle sue ore tre
	ISS698	Ha copiato 698. E' possibile che gli serviamo per esercitarsi
	ACC	Si lei non è il primo tra l'altro
	ISS698	Immagino... Eh.. comunque adesso rileviamo la nostra posizione stiamo a diciamo 15 miglia prima dell'AMANO e faremo un rapporto a terra
	ACC	Ricevuto Merair 698 grazie lo faremo anche noi.
	ISS698	Grazie
152319	ACC	Merair 698 ulteriori con Roma 33 e 25 adesso è praticamente libero dalla zona operazioni.
	ISS698	La ringrazio 33.25 con Roma 698 Buongiorno

30 MAR '01 10:34 D.O.V.D.E.S.MERIDIANA SEGR P.8

Meridiana
DIREZIONE OPERAZIONI VOLO

RAPPORTO DI VOLO

Volo IG 698 A/M ISMET Data 15-12-00 Scalo CTA Com.te

CAUSALE

- Avaria Tecnica
- Cancellazione
- Ritardo
- Dirottamento
- Assist. Scalo
- Trasporto
- X Varie: AIR PROXIMITY

EQUIPAGGIO

Pil.
F.E.
H.1
H.2
H.3
Agg.

Rapporto:

Durante il volo da BLQ a CTA a circa 20 NM prima di punto AMANO dopo ripetuti avvisi dell'ATC ROMA sulla presenza nell'area di Traffici non identificati non conosciuti e non controllati dal RADAR di Roma ATC (freq. 127.35) lo stesso ROMA ATC ci segnalava il traffico diretto verso uno e più o meno alla stessa quota contemporaneamente il TCAS di bordo emetteva una RESOLUTION ADVISORY del tipo: "CLIMB CLIMB" ed effettuavo una salita rapida da FL 270 a FL 290, avvisando ROMA ATC. Sul video TCAS il Traffico risultava 3-400 ft sotto di noi

Dati Tecnici Operativi (*)	Informazioni Meteo (*)
	Meridiana S.p.A. D.O.V. Data 18-12-2000 Prot. 306

Data | (*) Allegare copia della documentazione | Firma Com.te

30 MAR '01 10:35 D.O.V.D.E.S.MERIDIANA SEGR P.9

Rapporto: (cont.)

e leggermente più avanti a noi, ma non in vista. Successivamente avvistavamo un caccia militare sulla destra, ore 2, molto veloce, a circa 1 NM. I traffici militari provenivano da una portaerei in navigazione tra la Sicilia e la costa italiana. In accordo con ROMA ACC ho richiesto un Mod. 28 per AIR PROXIMITY all'ENAV di CTA in data 16/12/00.

Distinti Saluti.

P.S. Allego fotocopia Mod. 28

Data 16/12/00 Firma Com.te

Firma Data

RISPOSTA A CURA DELLA DIREZIONE OPERAZIONI VOLO

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! CENTRO ELABORAZIONE DATI AERONAUTICA MILITARE    ACCAM   Pag. 001 Copia. 01
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| AREA OP. : SMACOP
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O 072301Z DEC 00 ZYB
FM USS HARRY S TRUMAN
TO RHMFIUU/AIROPS SIGONELLA IT
RUFEPSE/AIROPS SIGONELLA IT
RIFTML/TRAPANI IT 18TH SQ
INFO RUEHRO/USDAO ROME IT
RXFEF/3RD ROC MARTINA FRANCA
RIFTA/STATO MAGGIORE AERONAUTICA ROME IT
RHMFIUU/CINCUSNAVEUR LONDON UK//N3/N315//
RHDLCNE/CINCUSNAVEUR LONDON UK//N3/N315//
RUFRQJQ/COMSIXTHFLT
RUFNPKR/COMSIXTHFLT
RUFRMDA/CTF SIX ZERO
RUFOADA/JAC MOLESWORTH RAF MOLESWORTH UK
RUFNASC/COMFAIRMED NAPLES IT
RULYVLA/COMHSTBATGRU
RULYHST/COMCARAIRWING THREE
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UNCLAS
MSGID/GENADMIN/USS HARRY S. TRUMAN/DEC 00//
   PAGE 02 RULYHST6078 UNCLAS
SUBJ/NOTICE OF INTENT TO CONDUCT FLIGHT OPERATIONS/DIVERT ALERT//
POC/CDR SCAVONE, M. D./AIR OPS/-/-/TEL:(757) 836-2669//
RMKS/1.  CV FLIGHT OPERATIONS WILL BE CONDUCTED IN INTERNATIONAL
AIRSPACE WITHIN THE ROMA FIR/UIR (LIRR), SFC TO FL400, 14-15 DEC 00,
0900Z-2300Z.
2.  AIRCRAFT WILL OPERATE UNDER THE PROVISION OF DUE REGARD FOR THE
SAFETY OF OTHER AIR AND SURFACE TRAFFIC IN THE VICINITY OF THE FLEET.
ALL FLIGHT WILL COMPLY WITH APPLICABLE ICAO PROCEDURES FOR FLIGHT
IN INTERNATIONAL AIRSPACE.  AIRCRAFT WILL OPERATE IN VISUAL
METEOROLOGICAL FLIGHT CONDITIONS (VMC) OR WITHIN RADAR SURVEILLANCE
AND RADIO COMMUNICATION OF A SURFACE OR AIRBORNE RADAR FACILITY.
THESE CONDITIONS PROVIDE FOR A LEVEL OF OF SAFETY EQUIVALENT TO THAT
NORMALLY GIVEN BY ICAO AIR TRAFFIC CONTROL AGENCIES.  AIRCRAFT VOICE
CALLSIGN CONSISTS OF ALPHA CHARLIE (AC) PLUS SIDE NUMBER.
3.  A NATIONAL OR INTERNATIONL NOTAM IS NEITHER REQUIRED NOR DESIRED.
4.  REQUEST THE FOLLOWING AIRFIELDS BE ALERTED FOR POSSIBLE DIVERT OF
 JET/PROP/HELO AIRCRAFT, AS FOLLOWS:
          AIRFIELD                      DATES/TIMES
   A.  SIGONELLA (LICZ)         14-15 0900Z-2300Z DEC 00
   B.  CAPODICHINO (LIRN)       14-15 0900Z-2300Z DEC 00
   PAGE 03 RULYHST6078 UNCLAS
5.  ONLY EMERGENCY AIRCRAFT WHICH CANNOT MAKE CARRIER LANDINGS WILL
BE DIVERTED.  REQUEST CONTINUOUS UHF COMMUNICATIONS, NAVAIDS AND
LIGHTING DURING HOURS OF DARKNESS WITHIN TIMES SPECIFIED ARE
REQUIRED.
6.  REQUEST CONFIRMATION VIA MESSAGE OR EMAIL:
CLOCKWJ%TRUMAN.NAVY.MIL OR ADVISE IF UNABLE TO COMPLY.//
BT
;6078
Lista di Distribuzione : .
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STATO MAGGIORE AERONAUTICA
1° Ufficio - Sezione "Smistamento Posta"
1 1 DIC. 2000
N. di Carico 77535

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S.M.A. - 3° REPARTO
UFF. 1 2 3 4 5 PREF
12 DIC. 2000
405273
COMAER - QUARTIER GENERALE CENTRO ACCAM
PROT. N°

12-GEN-2001 11:38   00390649865296   96%   P.01

CENTRO ELABORAZIONE DATI AERONAUTICA MILITARE ACCAM Pag. 001 Copia. 01

NRO. ARCHIVIAZIONE - 34700002A CODA : ARRIVI

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AREA OF. : PAM

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PROT. N° 407724

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12 DIC. 2000
N. di Carico 78 036

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VZCZCTFA764
RR RIFTA
DE RUFRHST 0134 3462331
ZNR UUUUU ZUI RUFNMCB1342 3462159
R 112331Z DEC 00 ZYB
FM USS HARRY S TRUMAN
TO RHMFIUU/AIROPS SIGONELLA IT
RUFPPSE/AIROPS SIGONELLA IT
RIFTML/TRAPANI IT 18TH SQ
INFO RUEHRO/USDAO ROME IT
RXPEF/3RD ROC MARTINA FRANCA
RIFTA/STATOMAGGIORE ROME IT//JJJ//
RHMFIUU/CINCUSNAVEUR LONDON UK//N3/N315//
RHDLCNE/CINCUSNAVEUR LONDON UK//N3/N315//
RUFRAIQ/COMSIXTHFLT
RUFNFKR/COMSIXTHFLT
RUFRMDA/CTF SIX ZERO
RUFDADA/IAC MOLESWORTH RAF MOLESWORTH UK
RUFNASC/COMFAIRMED NAPLES IT
RUFRVLA/COMHSTBATGRU
RUFRHST/COMCARAIRWING THREE
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UNCLAS
MSGID/GENADMIN/USS HARRY S TRUMAN/DEC 00//
PAGE 02 RUFRHST0134 UNCLAS
SUBJ/NOTICE OF INTENT TO CONDUCT FLIGHT OPERATIONS/DIVERT ALERT//
REF/A/DOC/USS HARRY S. TRUMAN/-/072301Z/DEC00//
AMPN/NOTICE OF INTENT TO CONDUCT FLIGHT OPERATIONS/DIVERT ALERT//
POC/CDR SCAVONE, M. D./AIR OPS/-/-/TEL:(757)-836-2669//
RMKS/1. REF A CANCELLED.
2. CV FLIGHT OPERATIONS WILL BE CONDUCTED IN INTERNATIONAL AIRSPACE WITHIN THE ROMA FIR/UIR (LIRR), SFC TO FL400, 13-18 DEC 00, 0900Z-2300Z.
3. AIRCRAFT WILL OPERATE UNDER THE PROVISION OF DUE REGARD FOR THE SAFETY OF OTHER AIR AND SURFACE TRAFFIC IN THE VICINITY OF THE FLEET. ALL FLIGHT WILL COMPLY WITH APPLICABLE ICAO PROCEDURES FOR FLIGHT IN INTERNATIONAL AIRSPACE. AIRCRAFT WILL OPERATE IN VISUAL METEOROLOGICAL FLIGHT CONDITIONS (VMC) OR WITHIN RADAR SURVEILLANCE AND RADIO COMMUNICATION OF A SURFACE OR AIRBORNE RADAR FACILITY. THESE CONDITIONS PROVIDE FOR A LEVEL OF OF SAFETY EQUIVALENT TO THAT NORMALLY GIVEN BY ICAO AIR TRAFFIC CONTROL AGENCIES. AIRCRAFT VOICE CALLSIGN CONSISTS OF ALPHA CHARLIE (AC) PLUS SIDE NUMBER.
4. A NATIONAL OR INTERNATIONL NOTAM IS NEITHER REQUIRED NOR DESIRED.
5. REQUEST THE FOLLOWING AIRFIELDS BE ALERTED FOR POSSIBLE DIVERT OF JET/PROP/HELO AIRCRAFT, AS FOLLOWS:
PAGE 03 RUFRHST0134 UNCLAS

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A.	SIGONELLA (LICZ)	13-18 0900Z-2300Z DEC 00
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6. ONLY EMERGENCY AIRCRAFT WHICH CANNOT MAKE CARRIER LANDINGS WILL BE DIVERTED. REQUEST CONTINUOUS UHF COMMUNICATIONS, NAVAIDS AND LIGHTING DURING HOURS OF DARKNESS WITHIN TIMES SPECIFIED ARE REQUIRED.
7. REQUEST CONFIRMATION VIA MESSAGE OR EMAIL: CLOCKWJ%TRUMAN.NAVY.MIL OR ADVISE IF UNABLE TO COMPLY.//

COMAER - QUARTIER GENERALE CENTRO ACCAM

U.S. NAVAL AIR STATION
PSC 812 BOX 1000
FPO AE 09627-1000

3000
Ser CO/00041
12 Jan 01

From: Commanding Officer, U.S. Naval Air Station, Sigonella
To: Comandante, 41st STORMO, Sigonella

Subj: CIRCUMSTANCES SURROUNDING NOTICE OF INTENT FOR USS HARRY S. TRUMAN

Ref: (a) USS HARRY S. TRUMAN msg 072301Z DEC 00
(b) USS HARRY S. TRUMAN msg 112331Z DEC 00

1. On 7 & 11 December 2000, USS Harry S. Truman transmitted two "intent to operate" messages (refs a & b) to NAS Sigonella Base Operations for operating within the Italian FIR boundaries. As per C6F Directive, NAS Sigonella Operations is the relaying activity for all Notices of Intent regarding 6th Fleet air activities within the AOR to the ICAO FIR activity affected (i.e., Roma FIR, etc.). NAS Sigonella Airops failed to receive these messages.

2. From 8 through 12 December 2000, the NASSIG local area network and DMS Message system experienced a technical failure caused by improper installation of a DMS message/e-mail system upgrade. The failure restricted delivery of any electronic information, either e-mail or naval messages, to any user on base. These unexpected failures prevented NAS Sigonella from receiving the Notice of Intent messages submitted by USS HARRY S. TRUMAN, and therefore, did not relay the appropriate Notices of Intent to Roma FIR.

3. During this same time frame, however, NASSIG operations personnel worked closely with 41st STORMO operations personnel to ensure all information regarding USS Harry S. Truman flight operations were passed to the appropriate agency for information or approval as required except for the Notices of Intent. We worked closely with ITAF operations personnel to ensure that all Tricarico-Preuher requirements were adhered to, and that briefings, mission planning, flight plans, and flight schedules were complete prior to flights.

COMMANDER IN CHIEF'S INSTALLATION EXCELLENCE AWARD 2000

CONVENZIONE RELATIVA ALL'AVIAZIONE CIVILE INTERNAZIONALE

stipulata a Chicago il 7 dicembre 1944

Art. 1

Gli Stati contraenti riconoscono che ogni Stato ha la completa ed esclusiva sovranità sullo spazio aereo sovrastante il proprio territorio.

Art. 2

Ai fini della presente Convenzione, è considerato territorio di uno Stato lo spazio terrestre e le acque territoriali ad esso adiacenti sotto la sovranità, la supremazia, la protezione od il mandato di tale Stato.

Art. 3

a) La presente Convenzione è applicabile solo agli aeromobili civili e non si applicherà agli aeromobili di Stato.

b) Gli aeromobili usati nei servizi militari, doganali e di polizia saranno considerati come aeromobili di Stato.

c) Nessun aeromobile di Stato di uno Stato contraente potrà sorvolare il territorio di un altro Stato o atterrarvi senza esservi autorizzato da un accordo speciale o in altro modo e conformemente alle condizioni poste.

d) Gli Stati contraenti s'impegnano, nell'emanare le disposizioni per i propri aeromobili, a tenere in debito conto la sicurezza delle navigazione degli aeromobili civili.

2.16 Co-ordination between military authorities and air traffic services

2.16.1 Air traffic services authorities shall establish and maintain close co-operation with military authorities responsible for activities that may affect flights of civil aircraft.

2.16.2 Co-ordination of activities potentially hazardous to civil aircraft shall be effected in accordance with 2.17.

2.16.3 Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between air traffic services units and appropriate military units.

2.16.3.1 Air traffic services units shall, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft. In order to eliminate or reduce the need for interceptions, air traffic services authorities shall designate any areas or routes where the requirements of Annex 2 concerning flight plans, two-way communications and position reporting apply to all flights to ensure that all pertinent data is available in appropriate air traffic services units specifically for the purpose of facilitating identification of civil aircraft.

2.16.3.2 Special procedures shall be established in order to ensure that:

a) air traffic services units are notified if a military unit observes that an aircraft which is, or might be, a civil aircraft is approaching, or has entered, any area in which interception might become necessary;

b) all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.

2.17 Co-ordination of activities potentially hazardous to civil aircraft

2.17.1 The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of a State or over the high seas, shall be co-ordinated with the appropriate air traffic services authorities. The co-ordination shall be effected early enough to permit timely promulgation of information regarding the activities in accordance with the provisions of Annex 15.

2.17.1.1 **Recommendation.—** *If the appropriate ATS authority is not that of the State where the organization planning the activities is located, initial co-ordination should be effected through the ATS authority responsible for the airspace over the State where the organization is located.*

2.17.2 The objective of the co-ordination shall be to achieve the best arrangements which will avoid hazards to civil aircraft and minimize interference with the normal operations of such aircraft.

2.17.2.1 **Recommendation.—** *In determining these arrangements the following should be applied:*

a) the locations or areas, times and durations for the activities should be selected to avoid closure or realignment of established ATS routes, blocking of the most economic flight levels, or delays of scheduled aircraft operations, unless no other options exist;

b) the size of the airspace designated for the conduct of the activities should be kept as small as possible;

c) direct communication between the appropriate ATS authority or air traffic services unit and the organization or unit conducting the activities should be provided for use in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities.

2.17.3 The appropriate ATS authorities shall be responsible for initiating the promulgation of information regarding the activities.

2.17.4 **Recommendation.—** *If activities potentially hazardous to civil aircraft take place on a regular or continuing basis, special committees should be established as required to ensure that the requirements of all parties concerned are adequately co-ordinated.*

Doc 9554-AN/932

Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations

FIRST EDITION — 1990

Approved by the Secretary General and published under his authority

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Foreword

The *Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations* was developed at the request of the Air Navigation Commission at the eighth meeting of its 120th Session. The request was the result of the ANC's review of the safety recommendations contained in the ICAO fact-finding investigation into the destruction of Iran Airbus A300 flight IR655 on 3 July 1988. The intent of the material is to amplify present Standards and Recommended Practices contained in relevant ICAO documents. Specifically, the material is intended to assist States in determining actions to be taken in situations contemplated by paragraphs 2.15 and 2.16 of Annex 11 to the Convention on International Civil Aviation — *Air Traffic Services.*

The Commission also recognized that the Standards and Recommended Practices pertinent to military activities potentially hazardous to civil aircraft, by their very nature, cannot provide for specific steps and detailed actions to be taken in respect of each and every situation which may arise and therefore identified a number of other actions which merited consideration and which have been incorporated in the manual.

The guidance material, which is advisory in nature, was developed by the Secretariat with the assistance of an air navigation study group consisting of both civil air traffic services and military experts from seven Contracting States and three international organizations.

Contracting States are requested to ensure that the material in this manual is brought to the attention of all civil and military administrative or operational personnel who may be concerned with the development and/or application of national practices and procedures relating to military activities potentially hazardous to civil aircraft.

Table of Contents

Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations

1. INTRODUCTION

1.1 The following guidance material has been developed at the request of the Air Navigation Commission for the purpose of assisting States in providing for the safe and orderly flow of international air traffic in the event that military activities, which constitute potential hazards to civil aircraft, are planned and conducted.

1.2 The guidance material, which is advisory in nature, is intended to assist States in determining actions to be taken in situations contemplated by 2.15 and 2.16 of Annex 11 to the Convention on International Civil Aviation — *Air Traffic Services.*

1.3 The objective of the guidance material is to promote effective co-ordination so that activity potentially hazardous to civil aircraft operations may be accommodated within agreed airspace. In particular, it aims to avoid a military unit from having to resort to notifying an intention to conduct hazardous activity over the high seas without prior consultation and the consequential penalties that such action may impose on other airspace users and ATS authorities.

2. BACKGROUND

2.1 Article 3 (a) of the Convention on International Civil Aviation states that "this Convention shall be applicable only to civil aircraft, and shall not be applicable to state aircraft". However, Article 3 (d) of the Convention states that "the Contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft". Article 3 (b) states that "aircraft used in military, customs and police services shall be deemed to be state aircraft."

2.2 The ICAO Assembly has developed a "Consolidated statement of continuing policies and associated practices related specifically to air navigation", which is updated at each session of the Assembly and was last set forth in Assembly Resolution A27-10. Appendix P to this resolution reads as follows:

Co-ordination of civil and military air traffic

WHEREAS the airspace as well as many facilities and services should be used in common by civil aviation and military aviation;

WHEREAS Article 3 (d) of the Convention requires that the Contracting States undertake, when issuing regulations for their state aircraft, that they have due regard for the safety of navigation of civil aircraft;

WHEREAS satisfactory solutions to the problem of common use of airspace have not been evolved in all areas; and

WHEREAS although full integration of the control of civil and military air traffic may be regarded as the ultimate goal, improvement in co-ordination in many States offers, at the present time, an immediate approach towards resolution of existing difficulties;

THE ASSEMBLY RESOLVES that:

1. the common use by civil and military aviation of airspace and of certain facilities and services shall be arranged so as to ensure the safety, regularity and efficiency of international civil air traffic; and

2. the regulations and procedures established by Contracting States to govern the operation of their state aircraft over the high seas shall ensure that these operations do not compromise the safety, regularity and efficiency of international civil air traffic and that, to the extent practicable, these operations comply with the rules of the air in Annex 2.

Associated Practices

1. Contracting States should as necessary initiate or improve the co-ordination between their civil and military air traffic services to implement the policy in Resolving Clause 1 above.

2. The Council should ensure that the matter of civil and military co-ordination in the use of airspace is included, when appropriate, in the agenda of divisional and regional meetings.

3. When establishing the regulations and procedures mentioned in Resolving Clause 2 the State concerned should co-ordinate the matter with all States responsible for the provision of air traffic services over the high seas in the area in question.

2.3 The International Standards and Recommended Practices in Annex 11, Chapter 2, 2.15 and 2.16 contain provisions for co-ordination between military authorities and air traffic services and co-ordination of activities potentially hazardous to civil aircraft. These provisions specify that air traffic services authorities shall establish and maintain close co-operation with military authorities responsible for activities that may affect flights of civil aircraft. The provisions also prescribe that the arrangements for activities potentially hazardous to civil aircraft shall be co-ordinated with the appropriate air traffic services authorities and that the objective of this co-ordination shall be to achieve the best arrangements which will avoid hazards to civil aircraft and minimize interference with the normal operations of such aircraft. Paragraphs 2.15 and 2.16 read as follows:

2.15 Co-ordination between military authorities and air traffic services

2.15.1 Air traffic services authorities shall establish and maintain close co-operation with military authorities responsible for activities that may affect flights of civil aircraft.

2.15.2 Co-ordination of activities potentially hazardous to civil aircraft shall be effected in accordance with 2.16.

2.15.3 Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between air traffic services units and appropriate military units.

2.15.3.1 Air traffic services units shall, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft. In order to eliminate or reduce the need for interceptions, air traffic services authorities shall designate any areas or routes where the requirements of Annex 2 concerning flight plans, two-way communications and position reporting apply to all flights to ensure that all pertinent data is available in appropriate air traffic services units specifically for the purpose of facilitating identification of civil aircraft.

2.15.3.2 Special procedures shall be established in order to ensure that:

a) air traffic services units are notified if a military unit observes that an aircraft which is, or might be, a civil aircraft is approaching, or has entered, any area in which interception might become necessary;

b) all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.

2.16 Co-ordination of activities potentially hazardous to civil aircraft

2.16.1 The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of a State or over the high seas, shall be co-ordinated with the appropriate air traffic services authorities. The co-ordination shall be effected early enough to permit timely promulgation of information regarding the activities in accordance with the provisions of Annex 15.

2.16.1.1 **Recommendation.**— *If the appropriate ATS authority is not that of the State where the organization planning the activities is located, initial co-ordination should be effected through the ATS authority responsible for the airspace over the State where the organization is located.*

2.16.2 The objective of the co-ordination shall be to achieve the best arrangements which will avoid hazards to civil aircraft and minimize interference with the normal operations of such aircraft.

2.16.2.1 **Recommendation.**— *In determining these arrangements the following should be applied:*

a) the locations or areas, times and durations for the activities should be selected to avoid closure or realignment of established ATS routes, blocking of the most economic flight levels, or delays of scheduled aircraft operations, unless no other options exist;

b) the size of the airspace designated for the conduct of the activities should be kept as small as possible;

c) direct communication between the appropriate ATS authority or air traffic services unit and the organization or unit conducting the activities should be provided for use in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities.

2.16.3 The appropriate ATS authorities shall be responsible for initiating the promulgation of information regarding the activities.

2.16.4 **Recommendation.**— *If activities potentially hazardous to civil aircraft take place on a regular or continuing basis, special committees should be established as required to ensure that the requirements of all parties concerned are adequately co-ordinated.*

3. CO-ORDINATION BETWEEN MILITARY AUTHORITIES AND ATS AUTHORITIES

3.1 Co-ordination between the responsible military authorities and the appropriate ATS authorities is essential to the safety of civil aircraft operations whenever activities potentially hazardous to such operations are planned and conducted by any military units. The "appropriate ATS authority" is, by definition, "the relevant authority designated by the State responsible for providing air traffic services in the airspace concerned". This co-ordination is necessary regardless of whether the activities take place over

the territories of States, over the high seas, or over territories of undetermined sovereignty, and whether the military and ATS authorities belong to the same or different States.

3.1.1 In the event that a sudden outbreak of armed hostilities or any other factors preclude this normal co-ordination process, appropriate State and ATS authorities, civil aircraft operators and pilots-in-command of aircraft must assess the situation based on the information available and plan their actions so as not to jeopardize safety.

3.2 Examples of military activities which may pose a threat to civil aircraft and which should be co-ordinated with ATS authorities include:

a) practice firing or testing of any weapons air-to-air, air-to-surface, surface-to-air or surface-to-surface in an area or in a manner that could affect civil air traffic;

b) certain military aircraft operations such as air displays, training exercises, and the intentional dropping of objects or of paratroopers;

c) launch and recovery of space vehicles; and

d) operations in areas of conflict, or the potential for armed conflict, when such operations include a potential threat to civil air traffic.

3.2.1 ATS authorities should be alert to military operations in areas of conflict, or the potential for armed conflict, when such operations include a potential for hazardous activity, and react accordingly.

3.3 If the potentially hazardous activities are planned to take place on a regular or continuing basis, a co-ordinating group should be given the task of ensuring that the operational needs of all parties concerned are adequately co-ordinated. This group should consist of representatives of the military organization(s) concerned, the appropriate ATS authority(ies) and the operators of civil aircraft.

3.4 Co-ordination with regard to activities potentially hazardous to civil aircraft operations over the high seas should be effected even if the States whose military organization and ATS authorities are concerned find themselves temporarily in diplomatic disagreement. If direct co-ordination with the appropriate ATS authorities via aeronautical or diplomatic channels is not possible, the co-ordination should be effected with the assistance of the appropriate regional office of ICAO or the ATS authorities of another State.

3.5 Co-ordination of activities potentially hazardous to civil aircraft should be effected with all air traffic services authorities responsible for providing services in the airspace concerned. The State(s) of the military organization(s) planning the potentially hazardous activities should initiate the co-ordination process. When the military organization involved is located in a State other than that responsible for the provision of air traffic services in the airspace affected, the initial co-ordination should be effected through the ATS authority responsible for the airspace over the State where the organization is located or via other agreed channels. For example, a naval force of State A, operating in the FIR of (friendly) State B, plans a potentially hazardous activity in the FIR of State C and States A and B agree through prior arrangements, the ATS authority of State B may co-ordinate the potentially hazardous activity directly with the ATS authority of State C. The ATS authority will be able to provide information and assistance in achieving co-ordination with all appropriate ATS authorities and ATS units and to give advice as to the impact which the planned activity is likely to have on civil aircraft operations in the area.

3.6 The first step in the normal co-ordination process is the transmission, or delivery, of a message to the appropriate ATS authority or authorities containing details of the planned activity. This message should describe the nature of the activity, the geographical area(s) affected, including its horizontal and vertical dimension(s), the proposed date(s), time(s) and duration(s) of the activity, any special safety measures to be taken if necessary, and the means and methods of co-ordination between participating military units and ATS units concerned, including use of radio communications.

3.7 This first step should be taken early enough to permit a dialogue regarding the planned activity and the detailed arrangements, bearing in mind the need to avoid hazards and to minimize interference with all airspace users.

3.8 The timing of the first step should also allow for promulgation of information regarding the activity, following the co-ordination dialogue, in sufficient time to reach flight crews well before the start of the activities. The advance notice required by the International Standards in Annex 15 — *Aeronautical Information Services,* Chapter 5, is at least seven days in the case of activation of established danger, restricted or prohibited areas, and in the case of activities requiring temporary airspace restrictions other than for emergency operations. However, a greater lead-time is recommended by the Annex regarding the establishment and withdrawal of, and premeditated significant changes in temporary danger, restricted and prohibited areas, and navigational hazards, military exercises and mass movements of aircraft (see 4.4).

3.9 The objective of the normal co-ordination process should be to reach agreement on:

a) the selection of location(s) or area(s), time(s) and duration(s) so as to avoid closure or realignment of established ATS routes, blocking of the most economic flight levels, or delays of scheduled aircraft operation, unless no other options exist;

b) the smallest possible size of the airspace designated for the conduct of the activity consistent with the attainment of its goals;

c) any special safety measures which need to be taken by the unit(s) conducting the activity, the ATS unit(s) concerned, or civil aircraft operating in the vicinity of the area;

d) the co-ordination needed between the ATS authority or unit and the military organization or unit(s) during the conduct of the activity; and

e) the means and method of effecting:

— exchanges of information regarding the start(s) and stop(s) of the activity;

— exchanges of information regarding the identity of civil aircraft, when necessary;

— co-ordination of special safety measures, including alerting and search and rescue services; and

— co-ordination in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities or parts thereof.

3.10 In the event that agreement is not reached on satisfactory arrangements, the ATS authorities should not withhold the promulgation of the essential information to flight crews, but should take the necessary steps to ensure that the safety of civil aircraft is not jeopardized, including any necessary re-routing of aircraft to avoid the area of activity. If the arrangements are considered completely unsatisfactory from the point of view of civil aviation, a report to that effect should be forwarded by the ATS authorities promulgating the essential information to the appropriate military authority for action. If the military organization belongs to another State, the report should be sent through the civil aviation authority of that State, and a copy should be forwarded to the appropriate regional office of ICAO.

3.11 The most suitable communication means for achieving co-ordination are those which can ensure rapid and reliable exchanges between the authorities concerned regarding the arrangements for activities potentially hazardous to civil aircraft.

3.12 The aeronautical fixed service (AFS) is available for this purpose. The AFS comprises all types and systems of point-to-point communications in the aeronautical telecommunication services. The most extensive and widely used part of the AFS is the aeronautical fixed telecommunication network (AFTN), which is a network of teletypewriter circuits that links all international airports, air traffic services units and notice to airmen (NOTAM) offices, and most national aviation administrations throughout the world. The AFTN is the principal means for the international exchange of aeronautical printed communications and also meets national aeronautical requirements. Messages exchanged between government civil aviation authorities in the AFS are classified as aeronautical administrative messages.

3.13 General procedures applicable to the use of the AFS, including the AFTN, are set forth in Volume II of Annex 10 — *Aeronautical Telecommunications.* Abbreviations and NOTAM codes approved for use in aeronautical messages are contained in ICAO Doc 8400, *Procedures for Air Navigation Services, ABC — ICAO Abbreviations and Codes,* while 4-letter location indicators for use in addresses are specified in ICAO Doc 7910, *Location Indicators,* and 3-letter addressee indicators are contained in ICAO Doc 8585, *Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.*

3.14 When a requirement exists for co-ordination between a military organization in one State and the ATS authority in another State, the AFTN can be used. The military organization may gain access to this system through the ATS authority of its own State based on local arrangements.

3.15 The use of military liaison officers and, where appropriate, civil liaison officers would do much to smooth the process of co-ordination and to ensure necessary follow-up action. In the case of extensive military operations, invitations from the planners to civil aviation administrations to participate in planning conferences at an early stage have been found fruitful, and exchange visits by operations personnel are also useful.

4. PROMULGATION OF INFORMATION

4.1 The International Standards in Annex 15, Chapter 5 specify that a NOTAM shall be originated and issued by States regarding the presence of hazards which affect air navigation

(including obstacles, military exercises, displays, races and major parachuting events outside promulgated sites).

4.2 The responsibility for initiating action regarding the promulgation of information regarding activities potentially hazardous to civil aircraft rests with the appropriate ATS authority of the provider State, following the co-ordination process described in paragraph 3. The information to be promulgated is forwarded to the aeronautical information service (AIS) of the same State, which has the responsibility for originating and issuing the requisite NOTAM. The task of issuing the NOTAM for international distribution is undertaken by the international NOTAM office (NOF) of the State, which is part of the AIS.

4.3 As mentioned in 3.8, the Standards in Annex 15 prescribe that at least seven days advance notice shall be given of the activation of established danger, restricted or prohibited areas and of activities requiring temporary airspace restrictions other than for emergency operations. Notice of any subsequent cancellation of the activities or any reduction of the hours of activity or the dimensions of the airspace should be given as soon as possible, preferably at least 24 hours in advance.

4.4 As regards temporary danger, restricted and prohibited areas and navigational hazards, military exercises and mass movements of aircraft, Annex 15 recommends that the regulated system (AIRAC — aeronautical information regulation and control) should be used to promulgate information. The AIRAC system is based on a series of common effective dates at intervals of 28 days. It is aimed at the issuance of a NOTAM at least 42 days in advance of the effective date with the objective of reaching the recipients at least 28 days prior to the effective date.

4.5 A NOTAM is given either Class I distribution, normally via the AFTN, or Class II distribution, normally via airmail. Specifications regarding the format of a NOTAM Class I are contained in Appendix 5 to Annex 15. Distribution of a NOTAM Class I is predetermined according to agreements between international NOTAM offices based on the needs for pre-flight planning. Information regarding the current exchanges of Class I NOTAM between international NOTAM offices is contained in Part 2 of ICAO Doc 7383, *Aeronautical Information Services provided by States.*

4.6 As indicated in 3.10, promulgation of information regarding activities potentially hazardous to civil aircraft should not be withheld in the event that agreement cannot be reached with the originator on the details to be promulgated. Any disagreement should be the subject of separate remonstrations toward the organization planning the activities.

4.7 It is important that the exchange of NOTAM regarding potentially hazardous activities continue even in the case where two States find themselves temporarily in diplomatic disagreement. It must be borne in mind that the information is required not only for the airlines of the two States but also for international operators flying routes through the airspace affected by the activities. These operators will, in all probability, have no part in the disagreement and there can be no justification for penalizing them by denying them information which is essential for the safety of their operations. In such cases, the aeronautical information services (AIS) should be treated in a similar manner as the meteorological services. Therefore preservation of their existing channels of communication should be guarded in the light of their international obligations.

4.8 In the event that a State is unable, for some reason, to comply fully with the provisions of Annex 15 and the ICAO regional air navigation plan regarding promulgation and distribution of information concerning potentially hazardous activities, it should seek assistance from adjacent States or the appropriate regional office(s) of ICAO.

5. CO-ORDINATION BETWEEN MILITARY UNITS AND ATS UNITS

5.1 As indicated in 3.9 an essential part of the co-ordination between military and ATS authorities at the planning stage is to seek agreement on the co-ordination needed between the military unit(s) conducting potentially hazardous activities and the appropriate ATS unit(s), as well as on the means and methods for effecting the co-ordination.

5.2 The International Standards in Annex 11, Chapter 6 specify the need for facilities to permit communications by direct speech and, when a written record is required, by printed communications between area control centres, flight information centres, approach control offices or aerodrome control towers and appropriate military units providing a service within their respective areas of responsibility. The phrase "appropriate military units" in this context is taken to mean any permanently established military units controlling activities that may affect flights of civil aircraft. It is recommended, however, that the same requirement be applied also to temporarily established or mobile military units conducting potentially hazardous activities.

5.3 Ideally, the communication facilities should permit direct voice communication between the officer in charge of the conduct of the military activities and the air traffic control unit(s) responsible for the provision of air traffic services in

the airspace affected. To this end, agreement should be sought on the use of military or civil land-line, microwave or satellite relayed telephone circuits or radiotelephone channels, individually or in combination. The use of ATS air-ground radiotelephone channels for such co-ordination should be avoided, except as a last resort, as it may interfere with the communications between pilots and air traffic controllers.

5.4 The need for "printed" communications between military units and ATS units, such as teletype, telex or facsimile, depends on the nature of the potentially hazardous activity and the resultant need for exchanges of information in printed form. When the military unit(s) require(s) a constant flow of information regarding the planning and actual flight progress of civil flights in the area of activity, consideration should be given to the use of the AFTN for the purpose and, with the approval of the appropriate civil aviation authority, arranging for a special link to that network. If delays encountered on the AFTN are unacceptable, discrete teletype, telex or facsimile connexions should be established.

5.5 In cases where the military activity results in temporary route or altitude restrictions for civil aircraft, the controlling military unit should inform the appropriate ATS unit when the activity begins and ends, as well as when any temporary interruptions occur which would permit civil aircraft to be routed through the area of the activity. The availability of direct voice communications would also permit the ATS unit to request that the activity be discontinued completely or partly, as necessary, in the event of an accidental or emergency incursion of a civil aircraft in the area of activity.

5.6 Normally, civil aircraft should not operate in an area of hazardous military activity; however, in the event that civil aircraft are permitted to operate through, or in the immediate vicinity of, an area of potentially hazardous military activity, the safety of the civil aircraft may depend on positive identification by the military units. In such circumstances, arrangements should be made in all cases to provide the responsible military units with advance information regarding regularly or seasonally scheduled flights as well as non-scheduled commercial flights and general aviation flights through the area.

5.7 The information on planned flights should include:

a) aircraft identification to be used in communications, i.e. flight number and aircraft registration marks;

b) aircraft type;

c) point and estimated time of departure;

d) route(s);

e) flight level(s);

f) destination and estimated time of arrival; and

g) individual SSR code, if assigned in advance.

5.8 Any changes to the foregoing information should be forwarded as soon as they become known.

5.9 Information on the actual progress of flights should include:

a) actual take-off time, or last reported position, time and level;

b) next reporting point and estimated time; and

c) SSR code.

5.10 Warnings to civil aircraft regarding hazards and the need to take evasive action should normally be co-ordinated with, and issued only by, the appropriate ATS unit unless other co-ordination procedures have been established.

5.10.1 If an extreme emergency is deemed to exist, the military unit may attempt to transmit a direct warning to the aircraft on the VHF emergency channel 121.5 MHz. It must be realized, however, that not all aircraft will always have the capability to maintain a continuous listening watch on 121.5 MHz in addition to the ATS channel(s) (unless the carriage and monitoring of the emergency frequency has been made a mandatory provision for operations in the area by requiring this in a NOTAM) and that, in the case of aircraft having this capability, other communication tasks may result in interruptions of the listening watch on the emergency frequency.

5.10.2 It must also be realized that, unless the warning contains the correct call sign of the aircraft, the SSR Mode A code, or identification of the aircraft clearly and unambiguously by reference to its position, and unless standard aviation phraseology and a common international language is used, the warning may not be understood by the civil aircraft. A warning transmitted by the appropriate ATS unit on the normal ATS frequency is therefore more likely to be heard, understood and acted upon.

5.11 As indicated above, clarity in communication between military units and ATS units or, in emergencies, between military units and civil aircraft is essential to ensure proper understanding and avoid potentially disastrous results.

Some examples of phraseologies which may be suitable for use in air-ground communications are given in Appendix A. Additional phraseologies may, of course, be selected for use by agreement between particular military and ATS units to suit the circumstances associated with particular military activities.

5.12 In the event that the demand for routine or *ad hoc* co-ordination exceeds the capacity of the officer-in-charge of the conduct of the military activity and/or the duty air traffic controller or supervisor, the designation of separate liaison officers might be necessary. The use of separate liaison officers may also be desirable in other cases. In the case of large-scale activities covering a large area, the establishment of a special co-ordination cell in the area control centre concerned may be the optimum solution. Such a cell should then comprise both military and civil liaison personnel, and may be given the tasks of correlating and disseminating critical flight plan and flight progress data, including SSR transponder codes, co-ordinating the use of routes and flight levels, and assisting in resolving identification problems and coping with emergencies.

6. FAMILIARIZATION OF PERSONNEL WITH THE AREA OF ACTIVITY

6.1 In order that due regard will be given to the safe and efficient operation of civil aircraft, States should ensure that military authorities responsible for planning and conducting activities potentially hazardous to such aircraft are fully informed, and conversant with, the following in respect of the area of activity:

a) the type(s) of civil aircraft operations;

b) the ATS airspace organization and responsible ATS unit(s);

c) ATS routes and their dimensions; and

d) relevant regulations and special rules, including airspace restrictions.

6.2 During the co-ordination process described in paragraph 3 above, reference should therefore be made to the relevant ICAO regional air navigation plan(s) (ANP) and States' aeronautical information publications and related documents and charts, which contain the information mentioned in 6.1 b), c) and d) above. If necessary, a special briefing regarding the civil aviation infrastructure should be arranged with the assistance of ATS specialists from the State(s) concerned.

6.3 In the event that civil aircraft are permitted to operate through an area of military activity, military staff conducting the activity should also be fully informed of, and familiar with:

a) means and methods of identifying civil aircraft;

b) means and method(s) of co-ordination with the ATS unit(s); and

c) terminology and phraseologies for use in communications with ATS units or, as a last resort, with civil aircraft.

6.4 The foregoing information should be provided by the appropriate ATS unit, unless it is known that the military staff concerned has already been properly briefed.

6.5 In the event of large-scale, complex or unusual military activities, a special briefing should be arranged for civil ATS staff concerning the nature and scope of the activities, potential risks, necessary airspace reservations, and means and methods of co-ordination with participating military units. The objective of such briefings should be to make civil ATS staff familiar with all aspects which will, or may, affect the flights of civil aircraft and the air traffic services to be provided during the military activities.

7. IDENTIFICATION OF CIVIL AIRCRAFT

7.1 As indicated in 5.6, the safety of civil aircraft operations may, in certain circumstances, depend on the capability of military units to secure positive identification of civil aircraft. Special arrangements may therefore need to be made to ensure or enhance that capability.

7.2 The identification process is based on the correlation by military units of information derived from several sources which include:

a) air traffic services units;

b) airline flight schedules;

c) filed flight plans and related messages;

d) departure messages and flight progress reports;

e) electronic emissions from aircraft, including emissions from airborne weather radar and radio altimeters, and SSR responses; and

f) visual observations.

7.3 Advance information on regularly or seasonally scheduled civil flights can be derived from the airline flight schedules published in the ABC World Airways Guide or the Official Airline Guide (OAG), or from repetitive flight plans filed with, and stored by, the ATS units concerned. If weekly or monthly lists of planned regular flights are prepared by the ATS units concerned for their own purpose, copies of such lists should be forwarded to the military units planning to conduct potentially hazardous activities. The lists should include the information listed in 5.7. If no lists are being prepared as a matter of routine, the specific needs of the military units in terms of data and format should be ascertained and agreement reached on the best way of meeting the needs without imposing an excessive workload on the ATS units.

7.4 The provision of filed flight plan information to military units on a routine basis may not always be necessary if weekly or monthly lists of planned regular flights are forwarded routinely. However, arrangements must be made so that information on any additional flights and significantly late departures of regular flights will be provided on an *ad hoc* basis.

7.5 In this context it should be noted that the scheduled departure time in the ABC World Airways Guide or the Official Airline Guide and in filed flight plans is the scheduled or estimated departure time from the airport terminal, the so-called "off-block" time, (i.e. start taxi time) and not the estimated take-off time.

7.6 Information on the actual progress of flights through the area of activity may be obtained by the military unit in one of the following ways, or a combination thereof:

a) electronic means, such as re-transmission of radar pictures from the ATS unit concerned;

b) monitoring of the appropriate civil air traffic services frequency(ies); and

c) forwarding of departure times and position reports from the ATS unit concerned.

7.7 The methods in 7.6 a) and b) would ensure immediate access to the required information and would keep the routine workload on the ATS unit concerned to a minimum, while keeping the communications link between the two units free for urgent *ad hoc* exchanges. The method in 7.6 b) will, of course, require that the military unit be provided with VHF equipment and HF equipment where appropriate and that military personnel be assigned specifically to the task of monitoring the civil ATS air-ground frequency(ies) and be familiar with standard aeronautical position reporting procedures and the names, name codes and locations of designated reporting points. The alternative in 7.6 c) can lead to unacceptable delays if it is selected as the only or primary method, and it may also require the employment of additional personnel in the ATS unit in order to be effective. In any case, it is essential that information be requested from the ATS unit concerned on an *ad hoc* basis if any doubts regarding the identity of a flight remain in spite of radar monitoring and/or monitoring of reports transmitted on the air-ground frequency(ies).

7.8 Identification of civil aircraft by primary surveillance radar alone presupposes correlation of a radar return with the identity of an aircraft whose flight plan and/or present position is known from other sources, i.e. those described in 7.3 to 7.7 above. Identification by means of secondary surveillance radar (SSR) is easier if the SSR code allotment plan for the area of activity and the SSR codes assigned to individual flights are known.

7.8.1 The SSR code allotment plan for a given area may be found in the aeronautical information publication (AIP) of the State(s) concerned or it may be obtained, on request, from the relevant ICAO regional office. The SSR code allotment plan will indicate the SSR code groups in Mode A/3 allotted to individual States for assignment to international or domestic flights, or the code groups allotted to groups of States for assignment to international transit flights. The discrete SSR codes assigned to individual aircraft in flight can be obtained, on request, from the responsible ATS unit(s). The current *Procedures for Air Navigation Services, OPS — Aircraft Operations* (ICAO Doc 8168, Volume I, Part VIII) require civil aircraft equipped with a serviceable SSR transponder to operate the transponder at all times during flight and to transpond on Mode A Code 2000 unless otherwise directed by ATS units or prescribed by regional air navigation agreement. The latter can be ascertained from the relevant ICAO regional office.

7.9 An additional means of identifying a particular radar response as that of a civil aircraft is to request a given aircraft to squawk IDENT, i.e. to activate the special position identification (SPI) feature of the transponder. Such a request should be made, when required, through the responsible ATS unit, as any direct transmission from a military unit could interfere with normal air traffic control communications and could lead to confusion if the aircraft is within ATS radar coverage.

7.10 Identification of the "electronic signature" of civil aircraft will be enhanced by requiring all aircraft operating in a given area to carry serviceable SSR transponders and requiring aircraft equipped with weather radar and radio

altimeters to operate these continuously during flight. However, as long as the carriage of such equipment is not mandatory world-wide, reliance by a military unit on the absence of an "electronic signature" could lead to misidentification of civil aircraft and the inherent hazards.

7.11 If circumstances permit visual observations of aircraft, identification as civil aircraft is possible with reference to the nationality and registration markings under the wings and on the fuselage. The airline logo and distinctive colours on the tail plane and/or other parts of commercial aircraft are additional identification features. The use of full cockpit and cabin lights and illumination of logo lights if possible by civil aircraft should also facilitate identification.

8. WARNINGS AND NAVIGATIONAL ASSISTANCE

8.1 In the event that a military unit observes that a civil aircraft is entering, or is about to enter, a designated prohibited, restricted or danger area or any other area of activity which constitutes potential hazards, a warning to the aircraft should be issued through the responsible ATS unit. The warning should include advice on the change of heading required to leave, or circumvent, the area.

8.2 If the military unit is unable to contact the responsible ATS unit immediately and the situation is deemed to be a genuine emergency, an appropriate warning to the aircraft may be transmitted on the VHF emergency channel 121.5 MHz. If the identity of the aircraft is not known, it is important that the warning include the SSR code, if observed, and describe the position of the aircraft in a form meaningful to the pilot, e.g. by reference to an ATS route and/or the direction and distance from an airport or an aeronautical radio navigation aid, an established waypoint or reporting point. Examples of phraseologies for use in such circumstances are given in Appendix A.

8.3 In the case where an unauthorized aircraft is observed visually to be flying in, or about to enter a prohibited, restricted or danger area, the following visual signal is prescribed by the International Standards in Annex 2 — *Rules of the Air*, Appendix 1 to indicate that the aircraft is to take such remedial action as is necessary:

> By day and night: A series of projectiles discharged from the ground at intervals of 10 seconds, each showing, on bursting, red and green lights or stars.

8.4 The importance of co-ordinating with the responsible ATS unit(s), whenever possible, the issuance of any warnings and advice to civil aircraft regarding changes of flight path should be emphasized in any briefings or instructions given by military authorities to their units, since unco-ordinated warnings and associated navigational advice, when followed, may result in a potential risk of collision with other aircraft in the area.

9. AIR TRAFFIC RESTRICTIONS

9.1 As stated in 2.3, the objective of the co-ordination between the military authorities planning activities potentially hazardous to civil aircraft and the responsible ATS authorities is to reach agreement on the best arrangements which will avoid hazards to civil aircraft and minimize interference with the normal operations of civil aircraft. Ideally, this means the selection of locations outside promulgated ATS routes and controlled airspace for the conduct of the potentially hazardous activities.

9.2 If the selection of such locations is not possible due to the nature and scope of the planned activities, temporary restrictions imposed on civil air traffic should be kept to a minimum through close co-ordination between the military units and the ATS units, as discussed in paragraph 5.

9.3 Whenever possible, a flight level should be designated, at or above which civil aircraft may continue to operate normally without any hazard. In areas where the majority of civil aircraft would be in the en-route phase of flight, this flight level should ideally be at or below the lowest cruising levels normally used.

9.4 If the temporary closure of certain ATS routes is unavoidable, agreement should be sought by ATS authorities with the State(s) concerned on the temporary use of promulgated alternative routes bypassing the area of activity or, if no convenient promulgated alternative routes exist, on the establishment of temporary routes.

Note.— If the routes concerned are in airspace over the high seas or of undetermined sovereignty, the provision of Annex 11, 2.1.2 will apply.

9.5 It may be necessary to make special arrangements for aircraft descending into or climbing out of, airports in the vicinity of the area of activity. If the nature of the military activity permits, approaches and departures may have to be restricted to a particular direction, otherwise temporary discontinuation of the activity should be considered to permit normal approach and departure manoeuvres.

10. SPECIAL MEASURES IN THE EVENT OF ARMED CONFLICT OR THE POTENTIAL FOR ARMED CONFLICT

10.1 In the event of armed conflict or the potential for armed conflict, the Convention on International Civil Aviation does not affect the freedom of action of any Contracting State affected, whether as belligerents or as neutrals (Article 89 of the Convention). Nevertheless, the need for close co-ordination between civil and military authorities and units is even more critical.

10.2 The responsibility for initiating the co-ordination process rests with the States whose military forces are engaged in the conflict. The responsibility for instituting special measures to ensure the safety of international civil aircraft operations remains with the States responsible for providing air traffic services in the airspace affected by the conflict, even in cases where co-ordination is not initiated or completed.

10.3 Based on the information which is available, the State responsible for providing air traffic services should identify the geographical area of the conflict, assess the hazards or potential hazards to international civil aircraft operations, and determine whether such operations in or through the area of conflict should be avoided or may be continued under specified conditions. An international NOTAM containing the necessary information, advice and safety measures to be taken should then be issued and subsequently updated in the light of developments. All those concerned with initiating and issuing of NOTAM should be aware of the provisions governing the duration of the published NOTAM. Annex 15, 5.3.1.2 states that a NOTAM given Class I distribution shall be superseded by a NOTAM given Class II distribution when the duration of the circumstances notified is likely to exceed three months or the NOTAM has remained in force for three months. A copy of the NOTAM should be forwarded to the appropriate regional office of ICAO. Examples of such NOTAM are given in Appendix B.

10.4 If the necessary information is not forthcoming from the States whose military authorities are engaged in the armed conflict, the State responsible for providing air traffic services should ascertain the nature and scope of the hazards or potential hazards from other sources, such as aircraft operators, the International Air Transport Association (IATA) and the International Federation of Air Line Pilots' Associations (IFALPA), adjacent States or in some cases the relevant ICAO regional office in order to take the action outlined in 10.3 above.

10.5 The safety measures required to be taken will depend on the assessment by the State responsible for providing air traffic services of the nature and scope of the hazards, or potential hazards, to civil aircraft and the decision as to whether flight operations by civil aircraft through the area can be considered without risk.

10.6 If civil aircraft operations through the area are allowed, immediate attention should be given by the States concerned to special arrangements regarding co-ordination between military units and ATS units, briefings of personnel, identification of civil aircraft by military units, issuance of warnings and navigational advice, and air traffic restrictions, as outlined in 5 to 9 above. It is also essential that flight crews are reminded to be particularly vigilant when operating in, or transiting, the area of armed conflict.

10.7 In planning the conduct of operations through areas of armed conflict or the potential for armed conflict, operators should give due regard to the availability and serviceability of aircraft equipment needed to facilitate identification of the aircraft by military units and to permit guarding of the appropriate frequencies.

10.8 Safety measures prescribed by the State responsible for providing air traffic services may include, for example, the following requirements applicable to all aircraft operating in the area:

a) continuous monitoring of the emergency frequency 121.5 MHz;

b) carriage and continuous operation of SSR transponder with Mode C capability;

c) carriage and continuous operation of weather radar;

d) continuous display of aircraft exterior lighting and cabin lighting and illumination of logo lights if possible; and

e) presence on the flight deck of transport aircraft of a full flight crew complement, augmented by additional personnel as required by the situation.

10.9 The assistance of the ICAO regional office(s) concerned and the ICAO Headquarters in Montreal will be available on request, in the event that a State experiences difficulties in defining an area of armed conflict or the potential for armed conflict, assessing the impact upon civil aircraft operations, and/or developing, promulgating and implementing the requisite safety measures. Assistance may also be provided by ICAO at the request of IATA or IFALPA.

10.10 ICAO may assist in the development, co-ordination and implementation of necessary safety measures in the event that the State(s) responsible for the provision of air traffic services in an area of armed conflict cannot, for some reason, adequately discharge the responsibility referred to in 10.2 above. The specific nature and scope of such action will depend upon the particular circumstances involved. In such circumstances, ICAO will work in close co-ordination with the responsible State, with other provider and user States concerned, and with IATA and IFALPA.

Appendix A

Examples of Air-ground Transmissions on 121.5 MHz

1. Identification of civil aircraft

Military unit: AIRCRAFT POSITION (position*) SQUAWKING MODE A CODE (code) [ESTIMATED] ALTITUDE (level) AND GROUND SPEED (ground speed) THIS IS (call sign of military unit) PLEASE IDENTIFY YOURSELF AND STATE YOUR INTENTIONS.

Aircraft: (Call sign of military unit) THIS IS (call sign of aircraft) POSITION (position*) SCHEDULED (or CHARTER or PRIVATE) FLIGHT FROM (point of departure) TO (destination) FLIGHT LEVEL (level) [CLIMBING TO or DESCENDING TO] (level).

Military unit: (Call sign of aircraft) THIS IS (call sign of military unit) ROGER OUT.

2. Navigational warning

Military unit: (Call sign of aircraft) THIS IS (call sign of military unit) YOU ARE APPROACHING DANGER AREA (designation) (or AN AREA OF POTENTIAL HAZARDS) TURN RIGHT (or LEFT) TO HEADING (figure) TO AVOID CONFLICT.

Aircraft: (Call sign of military unit) THIS IS (call sign of aircraft) WILCO TURNING RIGHT (or LEFT) TO HEADING (figure).

Note: It is emphasized that advice to civil aircraft regarding changes to flight path should be co-ordinated with the responsible ATS unit(s) since unco-ordinated advice may result in a potential risk of collision with other aircraft in the area.

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* Position shall be expressed as follows, in order of preference. Use of geographical co-ordinates should be limited to cases where no other more suitable references are available.

1) (distance) NM (direction) OF (navigation aid or reporting point or airport) [ON AIRWAY (designation) or ON ATS ROUTE (designation)]

   Example: 25 NM WEST OF WILLY ON AIRWAY A97

2) [(distance) NM] ABEAM (navigation aid or reporting point)

   Example: ABEAM NILLY ON AIRWAY R54

3) (distance) NM (direction) OF (name of well known geographical location, such as town, city, island or mountain)

   Example: [redacted]UTH OF DAISY ISLAND

4) (latitude) NORTH or SOUTH (longitude) EAST or WEST

   Example: 1630 NORTH 14245 EAST.

Appendix B

Examples of NOTAM Class I Regarding Military Activities Potentially

Hazardous to Civil Aircraft

1. GG BCDEYNYX CDEFYNYX DEFGYNYX ...
   091532 EJKLYNYX
   A707 NOTAMN
   A) EJKL FIR B) WIE C) UFN APRX DUR
   E) NAVAL FORCES INCLUDING AIRCRAFT CARRIERS WILL BE OPERATING IN THE AREA (describe area with reference to latitude and longitude). IN ORDER TO FACILITATE CO-ORDINATION AND ENSURE SAFETY, CIVIL AIRCRAFT OPERATING BELOW FL... IN THIS AREA ARE REQUIRED TO OPERATE THEIR SSR TRANSPONDER, WEATHER RADAR AND RADIO ALTIMETER CONTINUOUSLY. CIVIL AIRCRAFT ARE ALSO REQUIRED TO MAINTAIN CONTINUOUS LISTENING WATCH ON THE EMERGENCY FREQUENCY 121.5 MHz AND TO RESPOND TO REQUESTS FOR IDENTIFICATION BY GIVING AIRCRAFT IDENTIFICATION, TYPE OF AIRCRAFT, ALTITUDE, POINTS OF DEPARTURE AND DESTINATION AND TYPE OF FLIGHT (IFR or VFR). AIRCRAFT UNABLE TO COMPLY ARE REQUESTED TO AVOID THE AREA OR TO NOTIFY EJKL ACC.

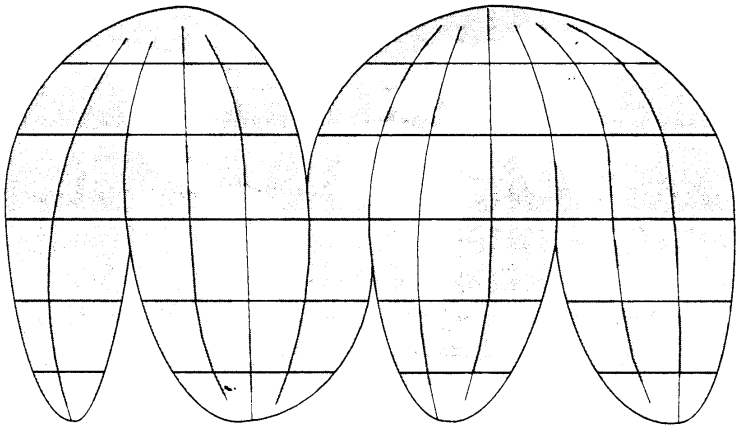
2. GG DCBAYNYX ACCOYNYX BADCYNYX ...
   171814 CBADYNYX
   A747 NOTAMN
   A) CBAD FIR B) WIE C) UFN APRX DUR
   E) PARAMILITARY FORCES REPORTED OPERATING IN AREA (describe area with reference to latitude and longitude). CIVIL AIRCRAFT ARE REQUESTED TO MAINTAIN AT LEAST FL... WHILE TRANSITING THE AREA IN ORDER TO AVOID A POTENTIAL THREAT (describe threat).

— END —

GP

DOD
FLIGHT INFORMATION PUBLICATION

GENERAL PLANNING



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Chapter 7

OPERATIONS AND FIRINGS OVER THE HIGH SEAS

7-1 GENERAL - The information in this chapter implements DoD Directive 4540.1, "Use of Airspace by United States Military Aircraft and Firings Over the High Seas," dated 13 January 1981. It provides guidance for the procedures to be used by United States military aircraft conducting air operations or gunnery exercises within airspace over the high seas.

7-2 APPLICABILITY - These procedures apply to all DoD components.

7-3 DEFINITIONS - (As used in this chapter).

a. MILITARY AIRCRAFT - Includes manned and unmanned aircraft, remotely piloted vehicles, and cruise missiles.

b. DoD COMPONENTS - Includes Office of the Secretary of Defense, military departments, organization of the Joint Chiefs of Staff, the unified and Specified Commands, and the Defense Agencies.

c. MILITARY SERVICES - Refers to the Army, Navy, Air Force, and Marine Corps.

7-4 POLICY

a. Freedom of the high seas includes the right of aircraft of all nations to use the airspace over the high seas, in accordance with the Geneva Conference on Law of the Sea, 1958, and International law, this freedom must be exercised by all countries with reasonable regard for the interests of other nations.

b. The sovereignty of a state extends beyond its land area to the outer limit of its territorial seas. The United States respects the rights of coastal states in waters off their coast, as reflected in the 1982 United Nations Convention on the Law of the Sea, as long as the rights of the United States and others under International law are also respected. The United States does not recognize territorial sea claims in excess of 12 nautical miles. The airspace beyond the territorial sea is considered International airspace where permission of the coastal state is not required for overflight and related military operations. This paragraph does not supersede specific guidance that may pertain to certain operations.

c. It is the policy of the DoD that all United States military aircraft and firings shall operate with due regard for the safety of all air and surface traffic. Further, when practical and compatible with the mission, United States military aircraft operations on the high seas shall observe:

(1) International Civil Aviation Organization (ICAO) flight procedures.

(2) Reasonable warning procedures with regard to the military aircraft of all nations and the Commonwealth of Independent States in accordance with the United States-Commonwealth of Independent States agreement. (Refer to paragraph 7-6, 7-12, and 7-13 of this chapter.)

7-5 SELECTION OF OPERATING AREAS

- Flight operations shall be conducted away from high density air traffic areas, when possible. Areas for aircraft and firing activities shall be selected so as not to interfere with established air routes and ocean shipping lanes. In establishing firing exercise areas, every effort shall be made to confine activities to warning areas, altitude reservations (stationary or moving), other special use airspace, or any combination thereof. Arrangements for airspace of altitude reservations shall be made through the appropriate airspace or altitude reservation function such as Federal Aviation Administration Central Altitude Reservation Function (CARF), European Central Altitude Reservation Function EUCARF), or Pacific Military Altitude Reservation Function (PACMARF).

7-6 NOTICES TO AIRMEN - When the activity may affect the safety of nonparticipants, coordination with the controlling agency and with appropriate Air Traffic Control facilities is essential to ensure safe routing of aircraft to, from and around operating areas. The DoD shall issue NOTAMS in accordance with AR 95-10/OPNAVINST 3721.20/AFJMAN 11-208 when the activity takes place outside published special-use airspace established in FLIP AP/1A.

7-7 OPERATIONS CONDUCTED UNDER ICAO PROCEDURES

- Normally routine point-to-point and navigation flights shall follow ICAO flight procedures. Refer to Chapter 6 of this publication for the ICAO procedures.

7-8 OPERATIONS NOT CONDUCTED UNDER ICAO PROCEDURES

a. There are certain operational situations that do not lend themselves to ICAO flight procedures such as: military contingencies; classified missions; politically sensitive missions; or routine aircraft carrier operations or other training activities. Operations not conducted under ICAO flight procedures are conducted under the "Due Regard" or "operational" prerogative of military aircraft and are subject to one or more of the following conditions:

(1) Aircraft shall be operated in Visual Meteorological conditions; or

(2) Aircraft shall be operated within radar surveillance and radio communications of a surface radar facility; or

(3) Aircraft shall be equipped with airborne radar that is sufficient to provide separation between themselves, aircraft they may be controlling, and other aircraft; or

(4) Aircraft shall be operated outside controlled airspace.

b. The above conditions provide for a level of safety equivalent to that normally given by ICAO Air Traffic Control agencies; and fulfill United States Government obligations under Article 3 of the Chicago Convention of 1944 which stipulates there must be "due regard for the safety of navigation of civil aircraft" when flight is not being conducted under ICAO flight procedures. Essentially, flight under the "Due Regard" or "operational" option obligates the military aircraft Commander to be his own Air Traffic Control agency and to separate his aircraft from all other air traffic.

c. Flight under above provisions shall be regarded as deviations from normally accepted operating procedures and

practices, and shall not be undertaken routinely. Except for pre-planned mission, pilots or Commanders exercising "Due Regard" authority shall record the details in writing, and upon request from higher authority, furnish a detailed report. Planners should reference DoD Directive 4540.1, Use of Airspace by United States Military Aircraft and Firings Over the High Seas, prior to planning missions which will exercise "Due Regard".

7-9 OPERATIONS IN FOREIGN AIR DEFENSE IDENTIFICATION ZONES (ADIZ)

- Procedures applicable to United States military aircraft penetrating a foreign ADIZ on a flight plan or intending to penetrate the sovereign airspace of the ADIZ country are published in Section C of the DoD Enroute Supplements. Military aircraft transiting through a foreign ADIZ without intending to penetrate foreign sovereign airspace are not required to follow these procedures. For operations near the national territory of Russia or in proximity to Russian military forces, consult paragraph 7-13, Prevention of Dangerous Military Activities Between the US and Russia.

7-10 PROCEDURES FOR MISSILE/PROJECTILE FIRINGS

- Firing areas shall be selected so that trajectories are clear of established oceanic air routes or areas of known surface or air activity. An exception to this operating procedure may be made when it can be ascertained that aircraft are operating above the maximum ordinate of the trajectory.

7-11 SPECIAL PROVISIONS

a. Details of classified operations shall not be divulged to unauthorized personnel.

b. In the event of combat operations in time of war, armed conflict, national emergency, situations requiring self- defense, or similar military contingencies, departure from the operating procedures in this chapter may be required. In all such instances, however, all possible precautions shall be taken to minimize any hazard to the safety of other air and surface traffic and departure from procedures set forth in this chapter shall be of no greater extent or duration than is required to meet the contingency.

c. The United States-Commonwealth of Independent States agreement (refer to paragraph 7-12) shall govern United States aircraft approaching aircraft and ships of Commonwealth of Independent States registry operating on and over the high seas.

7-12 PREVENTION OF INCIDENTS ON OR OVER THE HIGH SEAS (INCSEA)

a. GENERAL - The information in the following paragraphs has been contracted from the agreement between the United States and Commonwealth of Independent States "Prevention of Incidents On and Over the High Seas" dated 25 May 1972 - and the protocol to this agreement dated 22 May 1973.

b. Definitions - (as used in the United States-Commonwealth of Independent States Agreement).

(1) "Ship" means:

(a) A warship belonging to the naval forces of the United States or Commonwealth of Independent States bearing the external marks distinguishing warships of its nationality, under the command of an officer duly commissioned by the government and whose name appears in the Navy list, and manned by a crew who are under the regular naval discipline.

(b) Naval auxiliaries of the United States or Commonwealth of Independent States, which include all naval ships authorized to fly the naval auxilliary flag where such a flag has been established by either the United States or Commonwealth of Independent States.

(2) "Aircraft" means all military manned heavier-than-air and lighter-than-air aircraft, excluding space craft.

(3) "Formation" means an ordered arrangement of two or more ships proceeding together and normally maneuvered together.

c. Approaching Commonwealth of Independent States aircraft and/or ships: Commanders of United States aircraft shall use the greatest caution and prudence in approaching aircraft and ships of the Commonwealth of Independent States operating on and over the high seas, in particular, ships engaged in launching or landing aircraft, and in the interest of mutual safety shall not permit simulated attacks by the simulated use of weapons against aircraft and ships, or performance of various aerobatics over ships, or dropping various objects near them in such a manner as to be hazardous to ships or to constitute a hazard to navigation.

d. SIMULATED ATTACKS - Ships and aircraft of the United States shall not make simulated attacks by aiming guns, missile launchers, torpedo tubes and other weapons at non-military ships of the Commonwealth of Independent States nor launch nor drop any objects near non-military ships of the Commonwealth of Independent States in such a manner as to be hazardous to these ships or to constitute a hazard to navigation.

e. LAUNCHING OR LANDING AIRCRAFT - United States ships operating in sight of Commonwealth of Independent States ships shall give proper signals concerning the intent to begin launching or landing aircraft.

f. NAVIGATION LIGHTS - United States aircraft flying over the high seas in darkness or under instrument conditions shall, whenever feasible, display navigation lights.

g. NOTIFICATION OF ACTIONS - The United States unit Commander shall provide through the established system or radio broadcasts of information and warning to mariners, not less than 3 to 5 days in advance as a rule, notification of actions on the high seas which represent a danger to navigation or to aircraft in flight.

h. REPORTS OF COLLISION - The United States and Commonwealth of Independent States shall exchange appropriate information concerning instances of collisions, incidents which results in damage, or other incidents at sea between ships and aircraft of the United States and Commonwealth of Independent States. The United States Navy shall provide such information through the Russian Naval Attache in Washington and the Russian Navy shall provide such information through the United States Naval Attache in Moscow.

7-13 PREVENTION OF DANGEROUS MILITARY ACTIVITIES BETWEEN THE US AND RUSSIA

- An agreement between the United States and Russia seeks to ensure safety of the personnel and equipment of each country's armed forces by avoiding certain dangerous military activities and expeditiously and peacefully resolving related incidents. Complete instructions and procedures are contained in the FIH, Section A.

7-14 MILITARY FLIGHTS IN INTERNATIONAL AIRSPACE, INTERNATIONAL STRAITS AND ARCHIPELAGIC SEA LANES

a. PURPOSE - To provide policies for military flights consistent with the International recognized freedoms of navigation and overflight of the seas.

b. BACKGROUND - The policies in this enclosure are long established United States Government policy. This enclosure reiterates these policies in a single document.

c. POLICY -

(1) United States Government policy is to routinely and frequently exercise United States overflight rights in International airspace. Flight operations in International airspace are exempt from diplomatic clearance requirements. Further, military aircraft operating in International airspace (whether within or outside a Flight Information Region (FIR) or Air Defense Identification Zone (ADIZ), or transiting over water through International straits or archipelagic sea lanes are not legally subject to the jurisdiction or control of Air Traffic Control authorities of a foreign country.

(2) However, United States military aircraft are obligated under Article 3 of the Chicago Convention to exercise "Due Regard for the safety of navigation of civil aircraft." As a matter of United States policy, DoD Directive 4540.1, 13 January 1981, "Use of Airspace by Military Aircraft and Firings Over the High Seas," requires United States military aircraft operating over the high seas (or transiting over water through International straits or archipelagic sea lanes) to observe International Civil Aviation Organization (ICAO) flight procedures when practical and compatible with the mission.

(3) Definitions and responsibilities within categories of airspace follow:

(a) TERRITORIAL AIRSPACE - As applied to aircraft and their crews, includes the airspace above territorial seas, internal waters, and land territory. Consistent with International law, the United States Government recognizes territorial sea claims up to a maximum distance of 12 nautical miles from coastal states baselines drawn in accordance with International law. Diplomatic overflight clearance is official permission (consent) to operate in soverign airspace. Consent of the coastal state is required for flight within territorial airspace, except when transiting International straits or exercising the right of archipelagic sea lanes passage.

(b) INTERNATIONAL AIRSPACE - International airspace includes all airspace seaward of coastal states territorial airspace. International airspace includes airspace over contiguous zones (defined below), exclusive economic zones, and the high seas. International airspace is open to aircraft of all nations. Military aircraft may operate in such areas free of interference of control by the coastal state.

(c) INTERNATIONAL STRAITS OVERLAPPED BY TERRITORIAL SEAS - Such straits connect one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone. All aircraft have the right of transit passage through these International straits. Such transits must be continuous and expeditious. Coastal states may not legally require prior approval or notification for exercise of the right of transit passage of International straits. As a matter of United States policy, when flying Due Regard, no prior notification to coastal states will be provided when exercising the right of transit passage. When flying in accordance with ICAO rules and procedures, an ICAO flight plan may be filed with coastal state civil aviation authorities when exercising the right of transit passage. In no event, however, whether flying Due Regard or ICAO rules and procedures, will a diplomatic clearance be obtained from a coastal state for transit of an International strait.

(d) ARCHIPELAGIC SEA LANES - Archipelagic waters are those waters enclosed by the baselines drawn by an archipelagic nation. All aircraft, including military aircraft, have the right of archipelagic sea lanes passage through air routes traversing the archipelagic waters and adjacent territorial sea of an archipelagic nation. Such air routes include all normal passage routes used for International navigation through or over archipelagic waters. Archipelagic nations may not legally require prior approval or notification for exercise of the right of archipelagic sea lanes passage. As a matter of United States policy, when flying Due Regard, no prior notification to archipelagic states will be provided when exercising the right of archipelagic sea lanes passage. When flying in accordance with ICAO rules and procedures, an ICAO flight plan may be filed with archipelagic nation civil aviation authorities when exercising the right of archipelagic sea lanes passage. In no event, however, whether flying Due Regard or ICAO rules and procedures, will a diplomatic clearance be obtained from an archipelagic nation for transit of archipelagic sea lanes.

(e) CONTIGUOUS ZONE - A contiguous zone is an area seaward of the territorial sea in which the coastal state may exercise the control necessary to prevent or punish infringement of its customs, fiscal, immigration, and sanitary laws and regulations that occur within its territory or territorial sea. The contiguous zone may not extend beyond 24 nautical miles from the baseline from which the breadth of the territorial sea is measured (i.e., 12 nautical miles territorial sea plus 12 nautical miles contiguous zone). In the contiguous zone ships and aircraft, including warships and military aircraft, of all states enjoy the high seas freedoms of navigation and overflight.

d. PROCEDURES -

(1) United States military aircraft operating in International airspace, through an International strait, or through archipelagic sea lanes, challenged by authorities of a coastal or archipelagic state should advise such authorities that it is a United States military aircraft. in accordance with International law, the aircraft is operating in International airspace, exercising the right of transit passage of an International strait, or exercising the right of archipelagic sea lane passage, as the case may be. Aircraft should continue on planned route of flight.

(2) United States military aircraft intercepted by foreign aircraft should comply with established DoD flight Information Procedures and International Intercept Procedures.

(a) If intercepted in territorial airspace (as defined in subparagraph c. (3)(a) of a foreign country, comply with direction to depart territorial airspace or comply with direction to land, provided landing can be safely accomplished (e.g., suitable airfield). Upon landing, immediately contact United States embassy for assistance.

(b) If intercepted in International airspace, International straits, or archipelagic sea lanes, aircraft should continue on planned routes of flights. Advise foreign authority and/or interceptor that it is a United States military aircraft and in accordance with International law, the aircraft is operating in International airspace, exercising the right of transit passage of an International strait, or exercising the right of archipelagic sea lanes passage. An aircraft Commander always retains the responsibility

7-4 HIGH SEAS

for the safe conduct of the flight and has the option of landing the aircraft if, in the aircraft Commander's view, he has no other option than to follow the directions of an interceptor to prevent loss of life. If forced to land, immediately contact United States embassy for assistance.

e. OPERATIONAL GUIDANCE -

(1) The policy and procedures in paragraphs 3. and 4. are applicable to all DoD aircraft. However, responding to the authority of a coastal or archipelagic state, or complying with direction to land, pursuant to paragraph 4., may be contrary to mission specific operating procedures (e.g., Peacetime Application of Reconnaisance Programs (PARPRO)) or rules of engagement. In those instances, the operating procedures and rules of engagement prevail. Such mission specific procedures or rules must have Joint Staff approval before CINC implementation.

(2) For additional information, consult the DoD Foreign Clearnace Guide (General Planning Booklet) and DoD Flight Information Publications (FLIP).