ATTACHMENT 16

to Operations/Human Performance Group Chairman's Factual Report

Northwest Communication Procedures

DCA10IA001

ATC Communications

General

Constant communications should be maintained with ATC. If communications are lost, re-establish contact with ATC through GP/ARINC radio facilities.

Readback Requirements

ICAO rules require the following to be read back to the appropriate ATC facility:

- · Altitudes and Flight Levels.
- Headings and Airspeeds.
- · Airways or Route Clearances.
- · Runway in Use.
- Clearance to Enter, Land On, Takeoff On, Backtrack, Cross, or Hold Short of an Active Runway.
- Transponder Codes.
- · Altimeter Settings.
- Frequency Changes.
- · Type of Radar Service.

Mandatory Reports

The following reports are to be made to ATC without request, in addition to position reporting:

- · Vacating a previously assigned altitude or flight level.
- · Leaving a holding fix or point.
- Leaving the final approach fix inbound on final approach (not required in the U.S. when in radar contact).
- When an approach has been missed. Request clearance for specific action; for another approach, to another airport, etc.
- Time and altitude or flight level reaching a holding fix or clearance limit.
- · Encountering either unforecast or hazardous weather conditions.
- Refer to Weather, Pilot Weather Report (PIREP).
- The loss of navigation capability, or impairment of air to ground communications capability.
- Reports should include aircraft identification, equipment affected, degree to
 which the capability to operate under IFR in the ATC system is impaired, and
 the nature and extent of assistance desired from ATC.
- When unable to climb or descend at a rate of at least 500 feet per minute.
- When the true airspeed varies or is expected to vary from the speed filed in the original flight plan by one of the following amounts:
 - Plus or minus 5% or 10 knots, whichever is greater (U.S.).
 - Plus or minus 5% or more (ICAO).
- . Changes in ETA to ATC or an ATS unit for the next reporting point.
 - When an ETA given is in error by 3 minutes or more (not required in the U.S. when in radar contact).

6 - Communications

▲ DELTA

Company Communications

Flight Watch

Communications between the airplane and the company must be possible at all times to comply with FAR flight watch requirements. Enroute communication is maintained through ACARS, Atlanta Radio or Major World Air Route Area (MWARA), ARINC VHF/HF networks, and SATCOM.

Whenever the engines are running, the First Officer shall maintain Flight Watch requirements by:

- ensuring the proper operation of ACARS (no "NO COMM" msg)
- selection of the proper VHF/HF frequency with a successful SELCAL check or
- selection of the proper VHF/HF frequency and maintaining a listening watch

If both HF radios are being used for ATC (primary and secondary Oceanics), you are complying with Flight Watch requirements. Delta knows which sector you are in and they can contact you through that sector if needed. If you need to contact the company, a phone patch can be made through some OCA's frequencies (traffic permitting), through an OCA discreet frequency or through a GP Radio station as described in "Phone Patch" this section.

If you are not using the HFs for ATC (most LA/SA), maintain Flight Watch requirements by maintaining a listening watch or obtaining a successful SELCAL from the facilities and frequencies found in the HF Flight Control communications chart this section. The facilities are listed in preferential order. If unable contact with a facility listed in HF Flight Control communications chart this section then obtain a listening watch or successful SELCAL with any facility and advise flight control which facility and frequency you will guard.

If long range communication systems (LRCS, i.e. HF or SATCOM), are inop or not installed and you have a "NO COMM" message, you may still maintain Flight Watch requirements by using VHF voice via, ATL Radio, Gulfnet-Mexnet or dial-up sites. See applicable charts this section.

Phone Patch

Enroute

Phone patch capability exists on VHF or SATCOM through Atlanta Radio. An HF phone patch is available through ARINC or the Stockholm GP Radio station.

- Frequencies are located on the HF Flight Control Communications Table, this section.
- section.

 Other than calls to ATC, all operationally significant calls must be routed through ATL Radio (404-715-0160), or 404-715-1317 if using SATCOM, for security and federally mandated transcribing purposes. All calls to Dispatcher must be routed through ATL Radio for this same reason. Crews should not call Flight Control, Meteorology, Maintenance, etc., directly.

 In the evant the call can not be made to ATL Radio and the Captain deems it recesses to call the Dispatcher directly the number is (404) 715 000X
- In the evant the call can not be made to ATL Radio and the Captain deems in necessary to call the Dispatcher directly the number is (404) 715 00XX (dispatcher #) or (800) 325-2739 (DAL CREW). The crew must advise the dispatcher that the call has been made direct so the dispatcher can initiate secondary recording procedures.

6 - Communications Imaged by Jeppesen

▲ DELTA

Estimated Ramp Time (ERT) Report

When an enroute delay i.e, holding, is encountered, an Estimated Ramp Time (ERT) should be determined and reported to the Company as soon as practical.

NOTE: This is the only report that requires an arrival time.

- · Do not give an Expected Further Clearance (EFC) time.
- · ACARS aircraft should send a Revised ETA report in lieu of an ERT Report.

ERT Format (Voice)						
Call Sign	ERT Arrival Station	Estimated Ramp Time (UTC)	Remarks			
Example: "	Delta 234 ERT CVG 07	05, holding Falmouth."				

In-Range Report

Unless otherwise instructed in the Delta Special Pages (Green Pages), only one in-range report via ACARS or radio contact is required.

- · Reports should be made no later than top of descent.
- The Delta Special Pages (Green Pages) will indicate if a station requires a call
 on the ground.

Braking Action Report (Pilot)

A braking action report to tower and Company is required when braking action is less than good.

On ACARS equipped aircraft, reports should be made using the flight control free text message. If ACARS is inoperative or not installed, advise the Dispatcher or ask Operations to pass the information via computer.

Braking Action Report Format						
Call Sign	Landing Station*	Time (UTC)*	Runway	Braking Action		
Example: "D	elta 234, ATL*, 0221*	, Runway 27L, b	raking actio	n fair."		
* Normally or	mitted in the report to	Tower.				

VHF Monitoring

In general, when a VHF radio is not being used for ATC or company communications, monitor the universal emergency frequency (121.5 MHz).

Setup the aircraft's radios as follows:

	Radio		
	#1 /Left	#2 / Right	
Within VHF range of ATC	ATC	121.5 (126.9 in IFBP)	
Outside VHF range of ATC	123.45 (126.9 in IFBP)	121.5	

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