



Utility Monitoring Central Archive

Note that the UMC Archive files mainly cover defunct stations. Some stations may however still be active and some of the info may still be valid.

AERONAUTICAL RADIO, Inc (ARINC)

Last update: 10/Mar/2002

Transmission Modes: 1800 sym/s HF Datalink (MIL-188-110A variant) +1440Hz offset

Logged Frequencies (USB):

2878.0	3428.0	5463.0	6535.0	8885.0	10081.0	11318.0	13309.0	17919.0	21937.0
2947.0	3434.0	5508.0	6559.0	8957.0	10084.0	11321.0	13315.0	17934.0	21949.0
2998.0	3455.0	5547.0	6646.0	8912.0	10087.0	11327.0	13321.0	17967.0	21967.0
3016.0	3900.0	5583.0	6652.0	8927.0	10093.0	11348.0	13339.0	17985.0	21982.0
3019.0	4672.0	5655.0	6712.0	8936.0	11184.0	11354.0	13351.0	21928.0	21997.0
3116.0	4681.0	5720.0	8834.0	8977.0	11306.0	11384.0	15025.0	21931.0	
3404.0	4687.0	6532.0	8843.0	10066.0	11312.0	13276.0	17916.9	21934.0	

Web Address: <http://www.arinc.com>

Notes on Operation:

- [SAT][SUN]
- The system, called Globalink (or HF DataLink (HF DL)) is designed to provide seamless and uninterrupted air-ground and ground-air data communications for aircraft flying worldwide, especially over areas poorly served by VHF. It provides very similar functionality to the VHF ACARS system.

Current ground stations are located as follows:

Santa Cruz, Bolivia
Reykjavik, Iceland
Shannon, Ireland
Auckland, New Zealand
Krasnoyarsk, Russia
Johannesburg, South Africa
Hat Yai, Thailand
Barrow, Alaska, USA
Molokai, Hawaii, USA
Riverhead, New York, USA
Dixon, California, USA
Bahrain
Guam

Aircraft operators subscribing to the service include (with HFDL Code)

American Trans-Air	TZ
Ansett Australia	
CargoLux	CLX
Cathay Pacific	
China Airlines	
Continental	CO
Federal Express	
Finnair	AY
Lufthansa Cargo	LH
Korean Air Lines	KE
The Mitre Corporation	
Northwest Airlines	NW
Polar Air Cargo	PO
Saudia	SV
Tower Air	TO
United Parcel Service	UP
US Airways	
Unid	AP
Unid	CI

Squitters can be interpreted by checking the last three lines of the Code30 trace:

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GND STATION ID 013 ACTIVE FREQUENCIES 01010000000000000000
GND STATION ID 005 ACTIVE FREQUENCIES 10001000000000000000
GND STATION ID 006 ACTIVE FREQUENCIES 10010000000000000000
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First line is always the station being listened to, lines 2 and 3 indicate the status for other stations with a new pair every subsequent packet so that the others stations are covered over 4 or 5 messages.

Id Station

- H01 Dixon (San Fransisco), California
- H02 Molokai, Hawaii
- H03 Reyjavik, Iceland
- H04 Riverhead, New York
- H05 Auckland, New Zealand
- H06 Hat Yai, Thailand
- H07 Shannon, Ireland
- H08 Johannesburg, South Africa
- H09 Barrow, Alaska
- H12 Anchorage, Alaska (off-air - replaced by Barrow)
- H13 Santa Cruz, Bolivia
- H14 Krasnoyarsk, Russia
- H15 Bahrain
- H16 Guam

Sample Message Formats:

Example 1: Aircraft reporting position to New York

DATA RATE 300 SINGLE SLOT
DOWNLINK GND ID 004
AIR ID 178
REQUEST MEDIUM PRIORITY SLOTS 0 REQUEST LOW PRIORITY SLOTS 0
MUDR 300 OLDEST LPDU SEQUENCE NUMBER U(R) 0 LPDU [U(R) + 1..8] 00000000
NUMBER OF LPDU 1
UNNUMBERED DATA CRC OK
PERFORMANCE DATA
FLIGHT NUMBER ID UP9362
AIR POSITION LATITUDE NORTH 25 DEG 55 MIN LONGITUDE WEST 80 DEG 16 MIN
TIME 14:46:12
PD VERSION 1 FLIGHT LEG ID 1
GROUND STATION ID 004 FREQUENCY ID 3
FREQUENCY SEARCH COUNT: PREVIOUS LEG 0 CURRENT LEG 0
HF DATA DISABLED TIME: DURING PREVIOUS LEG 0 DURING CURRENT LEG 0
UPLINK MPDU DATA: RECEIVED 0 0 0 10 ERRORS 0 0 0 0
SQUITTER DATA: RECEIVED OK 53 ERRORS 2
DOWNLINK MPDU DATA: TRANSMITTED 0 0 1 4 ACK ON FIRST TRY 0 0 1 4
FREQUENCY CHANGE CODE 7 NO CHANGE

Example 2: Groundstation keepalive burst "squitter" from Reyjavik

DATA RATE 300 SINGLE SLOT
SQUITTER VER # 0 NOT LOADED GND ID 003 SYNC UTC 21:31:29 UTC FRAME OFFSET 7
SLOT ACKNOWLEDGEMENT CODES SLOT ASSIGNMENT CODES
FRAME SLOT FRAME SLOT FRAME SLOT
-3 11 NAK ALL -2 11 NAK ALL 0 11 RANDOM ACCESS
-3 12 NAK ALL -2 12 NAK ALL 0 12 RANDOM ACCESS
-2 01 NAK ALL -1 01 NAK ALL 1 01 RANDOM ACCESS
-2 02 NAK ALL -1 02 NAK ALL 1 02 RANDOM ACCESS
-2 03 NAK ALL -1 03 NAK ALL 0 03 RANDOM ACCESS
-2 04 NAK ALL -1 04 NAK ALL 0 04 RANDOM ACCESS
-2 05 NAK ALL -1 05 NAK ALL 0 05 RANDOM ACCESS
-2 06 NAK ALL -1 06 NAK ALL 0 06 RANDOM ACCESS
-2 07 NAK ALL -1 07 NAK ALL 0 07 RANDOM ACCESS
-2 08 NAK ALL -1 08 NAK ALL 0 08 RANDOM ACCESS
-2 09 NAK ALL -1 09 NAK ALL 0 09 RANDOM ACCESS
-2 10 NAK ALL -1 10 NAK ALL 0 10 RANDOM ACCESS
PRIORITY LEVEL 0 DATA BASE VERSION 17
GND STATION ID 003 ACTIVE FREQUENCIES 11010000000000000000
GND STATION ID 008 ACTIVE FREQUENCIES 00110000000000000000
GND STATION ID 009 ACTIVE FREQUENCIES 00001000100000000000