## **USN Plane 8 Records Dec 1944**

This appears to be a page from an aircraft radio operator's signal log book, possibly during a trans-Atlantic east-to-west flight. Places mentioned in the log are Natal and Fortaleza (both in NE Brazil) and possibly Ponta do Sol (in the Cape Verde Islands, off Africa). The first two of these were stopping points on the South Atlantic Ferry Route via which PanAm, Lend-Lease and later USAAF and USN aircraft were ferried to Africa and Europe during WWII. Starting from Florida, aircraft would route (depending on their range) via:

Borinquen, Puerto Rico (18°29'40"N 067°07'46"W)
Coolidge Army Airfield, Antigua (17°08'12"N 061°47'34"W)
Waller Army Airfield, Trinidad (10°36'48"N 061°12'48"W)
Atkinson Field, British Guiana (06°29'54"N 058°15'14"W)
Amapa, Brazil (03°51'06"N 051°47'51"W)
Val de Caes Field, Belém, Brazil (1°22'46"S 048°28'35"W)
São Luís, Brazil (02°35'07"S 044°14'03"W)
Adjacento Field, Fortaleza, Brazil (03°46'35"S 038°31'57"W)
Parnamirim Field, Natal, Brazil (03°46'35"S 038°31'57"W)
Ibura field, Recife, Brazil (08°07'35"S 034°55'24"W)
Fernando de Noronha Island, Brazil (03°51'17"S 032°25'24"W)
Wideawake Field, Ascension Island (07°58'10"S 014°23'38"W)
Roberts Airfield, Monrovia, Liberia (06°14'02"N 010°21'44"W)
...and thence onwards to the Middle East or Europe.

The order in which Natal and Fortaleza appear suggests that the aircraft may have been going back to the US, rather than following the West-to-East route listed above.

The radio operator would record all morse code ('wireless telegraphy' or 'W/T') messages transmitted and received, including messages overheard but not addressed to him. The log page makes much use of the so-called 'Q Code', a series of three-letter morse groups used as shorthand for various questions or requests and answers or reports. The Q Code was in common use before aeronautical radio traffic went over almost entirely to voice ('radio telephony' or 'R/T') and now, progressively to digital data messaging. I believe that some maritime radio still uses elements of the Q Code and a few isolated remnants survive as spoken words in aviation (eg 'QNH' for 'sea level altimeter setting', and 'QFE' for 'aerodrome elevation altimeter setting'.)

Even with modern equipment, HF radio is of very variable quality and readability, ranging from bad to ruddy awful! Hence, much of the log seems to be signal strebgth checks and attempts to establish reliable contact between aircraft and ground station.

Some of the log is quite difficult to read in the reproduction on the website, and my interpretation is very uncertain, but here goes...

It appears that 'V' may mean: 'My callsign is...'

'NTO' is possibly the callsign of the ground station being called by the aircraft. I cannot be sure if this was so at the time of the log entries but today, NTO is the (IATA) airport code for Agostinho Neto airport near the town of Ponta do Sol, on the northern tip of the island of Santo Antão, in Cape Verde. This is a feasible point of radio contact for aircraft which appear to be crossing the Atlantic from Africa to Brazil.

'407F' is therefore probably the callsign of the aircraft. Other aircraft callsigns are 407D, 407I (possibly), 407J, 511F, 511C

'INT' is probably short for 'interrogative', meaning: 'This is a question or request').

'K' is a request that a transmission is answered or acknowledged.

'QSA' is the Q Code for: 'What is the strength of my signal?' (ie 'how strongly are you receiving me?') or: 'Your signal strength is...[a number between 1 and 5].

Although I can find no confirmation for this, I suspect that 'QCO' may mean: 'What is the quality of my signal (ie clarity, as opposed to strength)?

'R' may indicate 'I am replying...' This may be a predecessor of the use of the spoken word 'Roger' to mean 'Your message is received and understood'.

'OHT' is possibly 'overhead time' (ie 'my actual time overhead or leaving the waypoint')

My best guess translation of the log page is as follows:

## Dec[ember] 29 continued:

0845	No signal [received?]
[time]	The original process of
1	NTO, this is 407F [calling]. What is my signal strength? What is my signal
	Strength? Please reply.
	V[?]NTO, please reply.
	This is 407F. What is my signal strength? Please reply.
	This is NTO. Your signal strength is 4 (ie 'Good'). Q[?]. Please acknowledge.
0905	407F RAR [possibly: I acknowledge.]
	NTO, this is 407F. What is my signal strength? Question: QMF [meaning
	unknown]. Please reply.
	This is NTO. Your signal strength is 5 [ie 'Very good']. QMF, QMF [?].
	Acknowledge.
0915	This is 407l replying. Your signal strength is 5. Your signal strength is 5. AR
	[meaning unknown]
	What is my signal Strength? QCO [possibly: what is my signal quality?].
	What is my signal Strength? QCO [as above]. Please reply.
	03DUN [possibly another aircraft calling]. Your signal strength is 3. QCO
0005	[possibly: Your signal quality is.] 2. Acknowledge.
0925	V[?] Replying. [Possibly: Your signal strength is 1]. AR [meaning unknown].
	NTO, this is 407J. Interrogative [Possibly means: Are you there?]
	407J, this is NTO. Acknowledge [or, possibly: Yes, I am listening.]
	This is 407J. V07[?] 11329 [possibly a date/time, which may be corrupted or
	even, just maybe, a Lat/Long position]. 1135 NTO – W – NYR (possibly a time and routeing] V BT [?] Overhead / leaving Natal I A AIVT [meaning
	unknown]. Acknowledge.
	This is NTO. IMI [meaning unknown]. Acknowledge
	This is 407J. 1135 I – NTO – W – NYR – GR4 BT [all, meaning unknown].
	Overhead Natal for Fortaleza – acknowledge.
0935	This is NTO. I acknowledge.
3000	NTO, this is 511F. Report my signal strength? Please reply.
_	This is NTO. Receiving you Strength 3. Acknowledge.
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0950	This is 511F replying. I receive you Strength 4. Acknowledge
	NTO 1, this is 511C. Acknowledge.
1030	NTO 1, this is 511C. 2910 [date and time?] GR1 BT IN [meaning unknown] –
	acknowledge.
	407F, this is 407D. Acknowledge.
	407D, this is 407F replying. I receive you Strength 5.
1035	This is 407D. Roger.
	407F, this is 407D. Interrogative [either QRW: 'Shall I inform that you are
	calling him?' or QRH: 'Does my frequebcy vary?']. Please reply.
	- [Unreadable]

## References

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