

Enclosure 1

5C

Everett
47-55-33N 122-16-23W

Seattle
47-32-31N 122-18-44W

NARRATIVE STATEMENT

- (a) The complete program of research and experimentation proposed including description of equipment and theory of operation:

This radio station will provide an RF line between ACARS (Aircraft Communication Addressing and Reporting System) management units under test with the SITA Terrestrial Network. The ACARS management units will be delivered on Boeing 767 and 747 aircraft. This system provides a datalink between the aircraft and the ground.

- (b) The specific objectives sought to be accomplished:

Testing will provide a basis to demonstrate the intended function of each ACARS management unit to the FAA for the purpose of type certification. The use of this station will be limited to ACARS management units provided by airlines that will be using them with the SITA network.

- (c) How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion, or utilization of the radio art, or is along line not already investigated:

Existing equipment allow a connection to the ARINC Terrestrial network. This station will allow testing with SITA, which provides service throughout Europe and the South Pacific. The SITA station will operate as a category B station, which permits the aircraft to uniquely identify the ground station it wants to address, whereas the ARINC Station operates as a category A station, which does not.

3 dB glassfibre colinear Type 7074

Type number	140-175 MHz (state exact frequency required)
Frequencies available	60 ohms
Input impedance	Less than 1.5/1 over the band
V.S.W.R.	200 watts
Maximum power	Typically $\pm 1.5\%$
Beamwidth (as a % of centre frequency)	3 dB
Gain over $\lambda/2$ wave dipole	Typically 31"
Half-power beamwidth	'N' type socket
Connection	Supplied with a pair of hot dipped galvanised steel clamps suitable for mounting alongside standard scaffold tubing 1 7/8" (48.41 mm) outside diameter)
Mounting	Brass rod
Elements	Glassfibre laminate tapering from 1 1/2" (38.1 mm) to 1 1/4" (31.75 mm)
Shroud	2.7 kg
Weight	11.7 kgf
Wind loading @ 160 kph	10' (3048 mm)
Length	

Jaybeam reserve the right to supply antennas or components with an operational bandwidth, as outlined on this data sheet, which includes but does not necessarily centre on the frequency or frequencies specified on the order.
The device can be supplied where the frequency specified is the centre of the bandwidth providing this requirement is clearly stated at time of enquiry or ordering.

