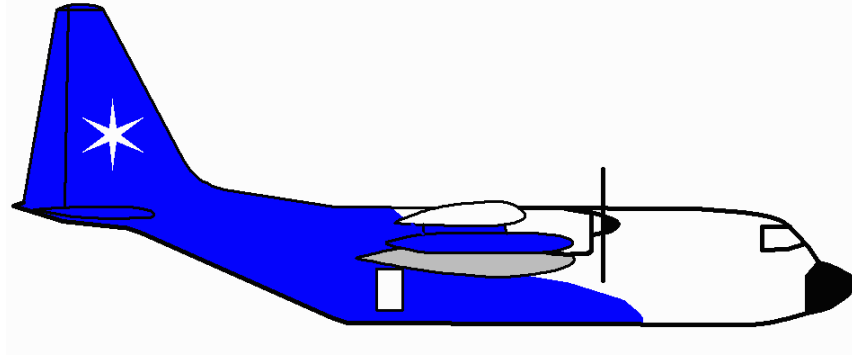


# C-130 and instrumentation for RICO



Schedule of upload, field and download  
Flight schedule and staff limitations  
Hardpoint allocation and cabin layout  
Time synchronization

# RICO Project Schedule, part 1

12 Oct	First Access to aircraft
12 Oct – 16 Nov	User Equipment Upload / RAF Pre-cals
17 Nov – 01 Dec	Flight Testing at JeffCO
02 Dec	Load aircraft in preparation for departure
03 Dec	Ferry C-130 from JeffCO to Florida (only 3 non-ATD observers)
04 Dec	Ferry C-130 from Florida to Antigua (only 3 non-ATD observers)
<b>07 Dec – 20 Dec</b>	<b>Research flight operations</b>
21 Dec	Ferry C-130 from Antigua to Tampa (only 3 non-ATD staff)
22 Dec	ATD staff return to Denver

## **RICO Project Schedule, part 2**

- 22 Dec – 01 Jan      Christmas Break
- 02 Jan                      ATD staff return to Tampa
- 03 Jan                      Ferry C-130 from Tampa to Antigua  
(only 3 non-ATD staff)
- 04 Jan – 24 Jan      Research flight operations**
- 26 Jan                      Ferry C-130 from Antigua to Florida  
(only 3 non-ATD observers)
- 27 Jan                      Ferry C-130 from Florida to JeffCO  
(only 3 non-ATD observers)
- 31 Jan – 10 Feb      Offload equipment / RAF Post-cals

# Flight schedule and staff limitations

161 mission flight hours

5 week deployment

32 hours per week = 4 flights of 8 hours

(Aircraft limits are 35 flight hours per week)

=> Not much time for instrument maintenance  
PI's should consider extra maintenance staff

1 hard down day per week.

3 technicians + 3 mechanics allocated to RICO

# RAF RICO flight operations support

(1) RAF will cover up to four (4) nine (9) hour flights with the maximum weekly total of flight hours limited to 36 hours.

It is recommended that consecutive flight days be limited to two, in order to allow for adequate time for servicing equipment (this is not a hard limit).

Standard crew duty limits will apply:

- 14 hour duty days

- 1 hard down day per week

RAF duty limits strongly recommended for non-RAF staff on C-130.

RAF can prevent someone from flying if excess fatigue is observed.

Power and access to aircraft 2 hours before takeoff and 1 hour after landing on flight days.

Power and access to aircraft from 0600 to 1200, as needed, on non-flight maintenance days.

Short extensions of up to 2 hours possible for critical emergency repair.

No access to aircraft on hard down days.

Instrument status updated via “chat” or other communication 1 hour prior to landing.

Flight status notification by 1600 local time for following day.

Recorded phone message available for status notification.

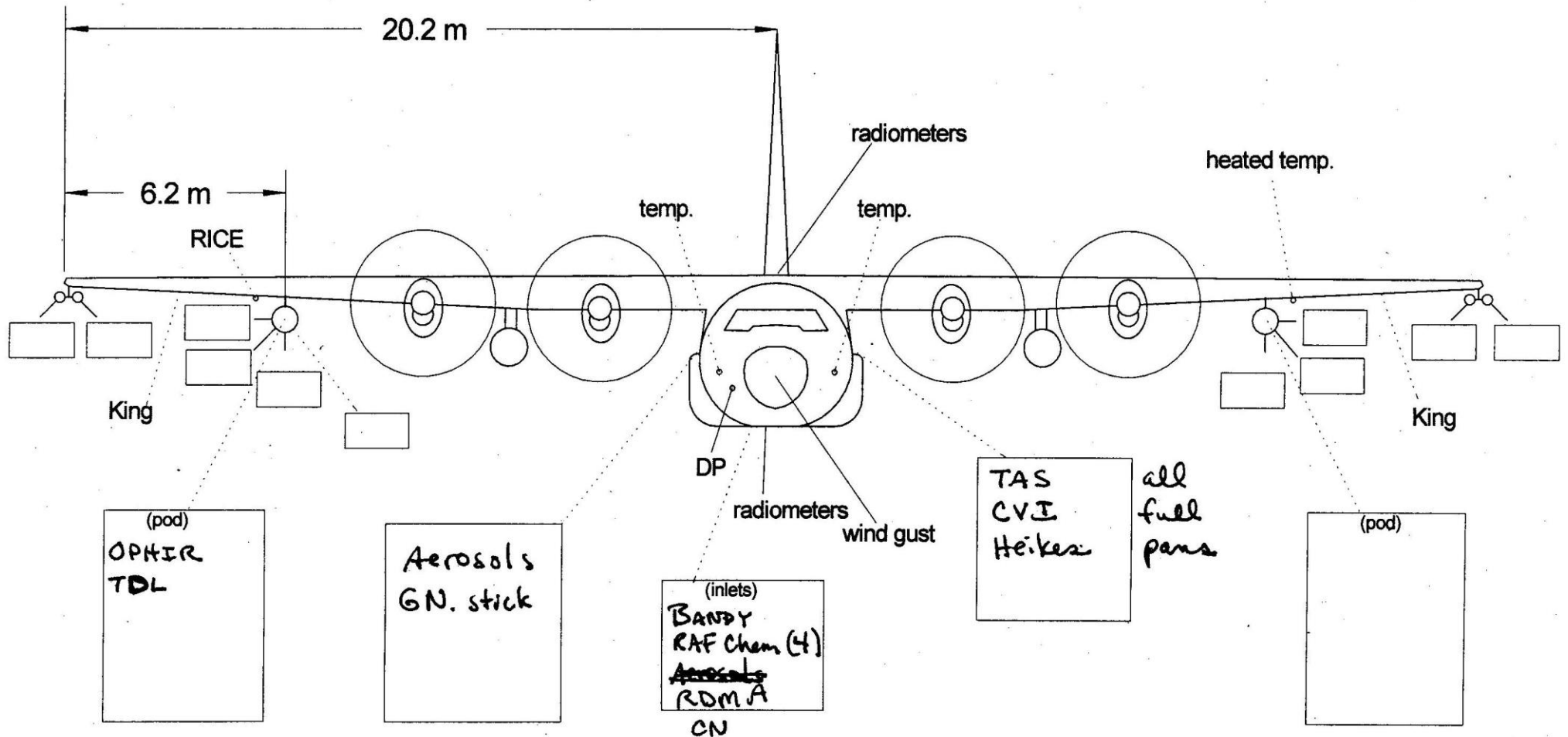
(C-130 specific)

Steering committee to establish a “mission critical instrument list” to guide maintenance and flight decisions.

# Hardpoint allocation and cabin layout

c130\_front\_template.skf 22-August-2002

Project: RICO Strawman





# Time synchronization

Strong need for synchronization between many instruments and the C-130 data logger.

C-130 can provide time as:

- IRIG-B

- NTP (Network Time Protocol)

- 1 Hz serial ASCII string

Please, please ensure that high time accuracy is built into your systems – trace gas, microphysics probes, etc.