

Alive Meeting:
2005-09-11 7:00 PM

Attendance:

Beat Schmid, BAER
Dan Rusk, site ops man. SGP
Diana Petty, RL, PNNL
Roy Johnson AMES
Nick Truong, BAER
Chuck Greenwood, Facility and C206,
Gene Fish, pilot for J31
Joseph Hovelman, J31 pilot

Brian Cairns RSP
Ed Russel RSP

Rich Ferrare, Langley

Ogren, NOAA, Cessna 206

Brief intro presentations:

Ogren:

Status, no update later than Friday.

Entire aircraft except for humidified Nephelometer checked out fine.

Ground tested only.

Chuck indicates the C206 has not yet flown, may be ready by Wednesday.

Aircraft was only returned Saturday morning, it has not flown yet. DOE requires 10 hours of flight testing.

1976 but re-built nearly from ground up.

After an unofficial flight over the site, data will be checked immediately. This should suffice for the 10 test hours and will check data transfer etcetera.

Contract for C206 calls for a fixed number of annual flight hours, we are behind in hours so fly as many hours as feasible.

This should be a golden opportunity for validating the new 206 package in tandem with the JetStream.

Flight plan review:

“De-conflicted” flight plans:

JetStream will wait until C206 starts 15K leg

C206 will call on Unocom to give J31 the go-ahead.

Cessna picks cross-wind legs.

2-leg separation maintained, minimum of 1500 feet.

Each leg JS overtakes C206.

Flight leg times from 15 min, 10 min, to 5 min

ATC radar flight following at all times.

Continually coms contact.

If loss of coms, J-31 returns immediately to base. Sept. 22nd is last research day of J-31.

Cairns, 18kft principal plane leg. If you have to hesitate at 18 kft, run with or against the sun.

Type 1: Alive Flights (wo C206): duration 01:15

Start with a low level leg, various heading throughout campaign (for RSP)

Then spiral up until above aerosol.

Then principle plane leg

Site is at 315 m, 1200 ft ASL. All legs are referenced to ASL except for the low leg ~500 AGL.

Transfer at 1500 ft agl.

Dave Groff: Met forecast

ETA forecast: 24-hours out,

A weak bndry, some rh lifting evident, this pattern has been in place for 24 hours with resulting altostratus, cumulous, and some convective debris. Similar conditions expected for tomorrow.

In 36 hours ETA, similar conditions, but weaker boundary, lower lift but MRF shows a more aggressive with RH and lift.

48 hour, lift and moisture with a sharp pressure trough on Tuesday.

60 hour prognosis: also not good. RH will support alto-stratus and alto-cumulous.

MRF model:

24 hours out: model predicts about what we had today.

Ferrare: if any opportunity, morning might provide some opening before the weather works up.

Thus an 8:00 AM weather briefing meeting is advised.

www-angler.larc.nasa.gov

Groff notes that weather was really firing up in Texas panhandle

Less likely that system will break up overnight with flow over the site coming from SW.

Purpose of IOP:

Validate RL and MPL

Synergistic RSP deployment

J-31:

AATS sunphotometer

RSP: downward looking, 410 out to 2250 nm, 10 channels, use polarization properties to get aerosol properties as well as optical depth.

Turner: Sensitivity to albedo?

Cairns: Specular scattering is mainly white, not highly structured in polarization.

Navmet and Aplanix

Greenwood Aviation:

Don't wander towards runway. Good restaurant. We're here to make your experiment a success. Normal hours 5-7, Sunday 7-7. Greenwood personnel will be here whenever we re here. 11:00 AM restaurant open. Closed Sunday.

J31 crew needs to be in 9-10 pm after flights, cool down.

Operations, over sight of course.

Operational limitations:

Duration: 5 hrs or up to 6. (up to 10 for ferry with max fuel)

Max cruise 16,000, 220 kts

Max alt. 25,000 msl

Operating range: 850 NMI

2200 NMI ferry tank w/IFR reserves

Dims: 47'L, 17.6'H, 52' wingspan

Radiosonde launch times: 00:30, 6:30, 12:30, 18:30 + 15m tolerance

Also some satellite validation launches ~2 PM afternoon.

Can get cart for LN2. Sat phone no longer.

Joseph Hovelman: total hours 4300, jetstream 723

Gene has more Jetstream flight hours than God.

Full NASA readiness review and PNNL safety.

Aircraft tours

Preflight procedures, N2 purges

Risk Mangement...

Single point of failure review and mitigation, eliminated

Risk assessment, approximate risk, rate effect.

Want to be unlikely, low impact.

RL improvements:

3 new channels in place, liquid water, t1, t2.

In this initial change, new optics were required including some mirrors.

The mirrors were well below spec, but were used in order to get the system up.

These mirrors have now been replaced with substantial improvements in aerosol signal.

Quicklooks changed to hourly for IOP.