



Jetstream 31/ CAR Integration Status 18JAN06

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Overview-

- Flight test plan complete
- Stress analysis at 35%
- Rotating controls unchanged
 - Motor sizing re-evaluated due to space constraints
- Composite fairing in work
 - Tooling at 85%
- Material for rotating bulkhead procured
 - Fabrication starts 17JAN06
 - Related components in work quickly after this
- Airframe attachments in review at Sky Research today
- Motor drive/cabling challenges being addressed

Rotating elements

→ CAR and rotating fairing

- Rotating Fairing at SAGE Cheshire/A2ZFX
- Schedule- delivery to Sky Research 30JAN06
- Fairing on schedule 18JAN06

Rotating elements in work

→ CAR and rotating fairing

– Foam “expendable male” tooling



Body tooling in work on 5
axis mill

Rotating elements in work

→ CAR and rotating fairing



1/2 of cutout tooling



Body tooling finish coat

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Rotating elements in fabrication

→ CAR rotating bulkhead

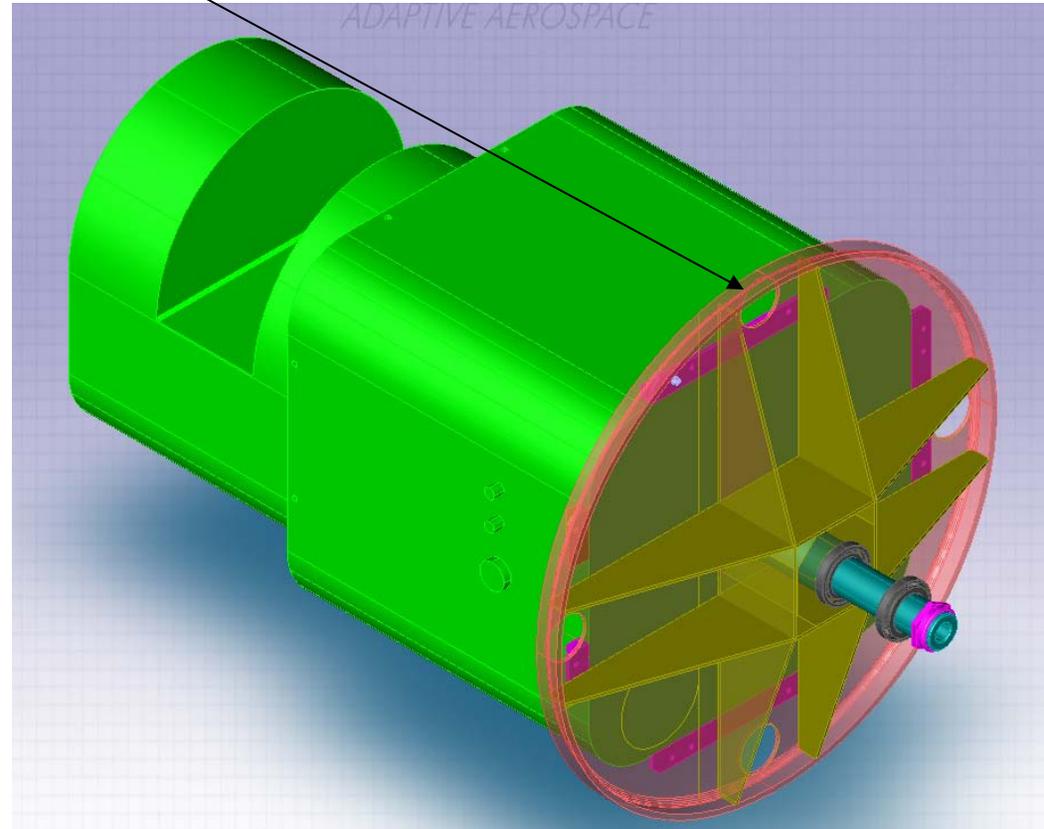
Design for stiffness:

- 6061-T6 1" machined plate for bulkhead

- 4130 egg crate weldment

- 4130 axle

- Taper roller bearings



Rotating elements: issues

-Gates belts and drive pulleys

→ CAR rotating bulkhead drive

Drive installation:

- Gates belt and drive pulleys
- Motor packaging currently fwd of bulkhead



-Bearings

-Bearing housing and spider not shown

-Motor axis

Body tooling finish coat

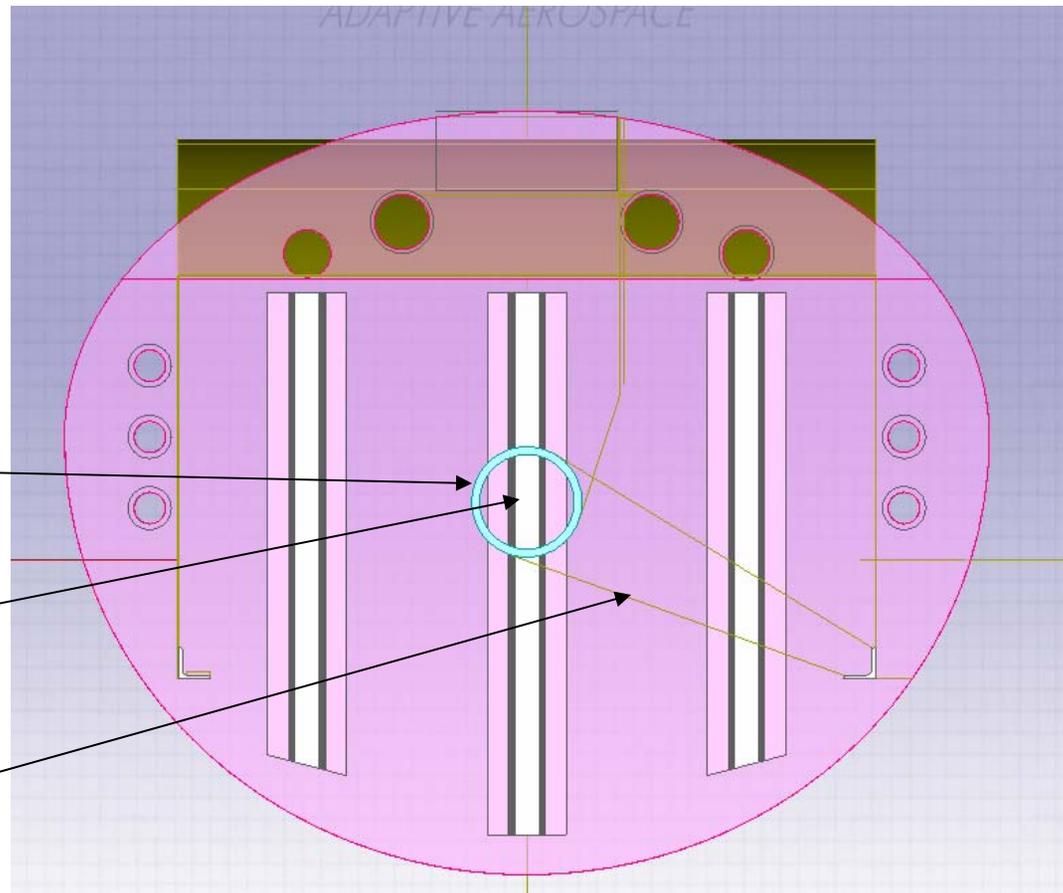
Airframe attachment

- Location of hard points finalized
 - Detail design at 50%
 - Spider design at 50%
 - Complete 18JAN06

-Bearing housing and spider

-Shaft axis

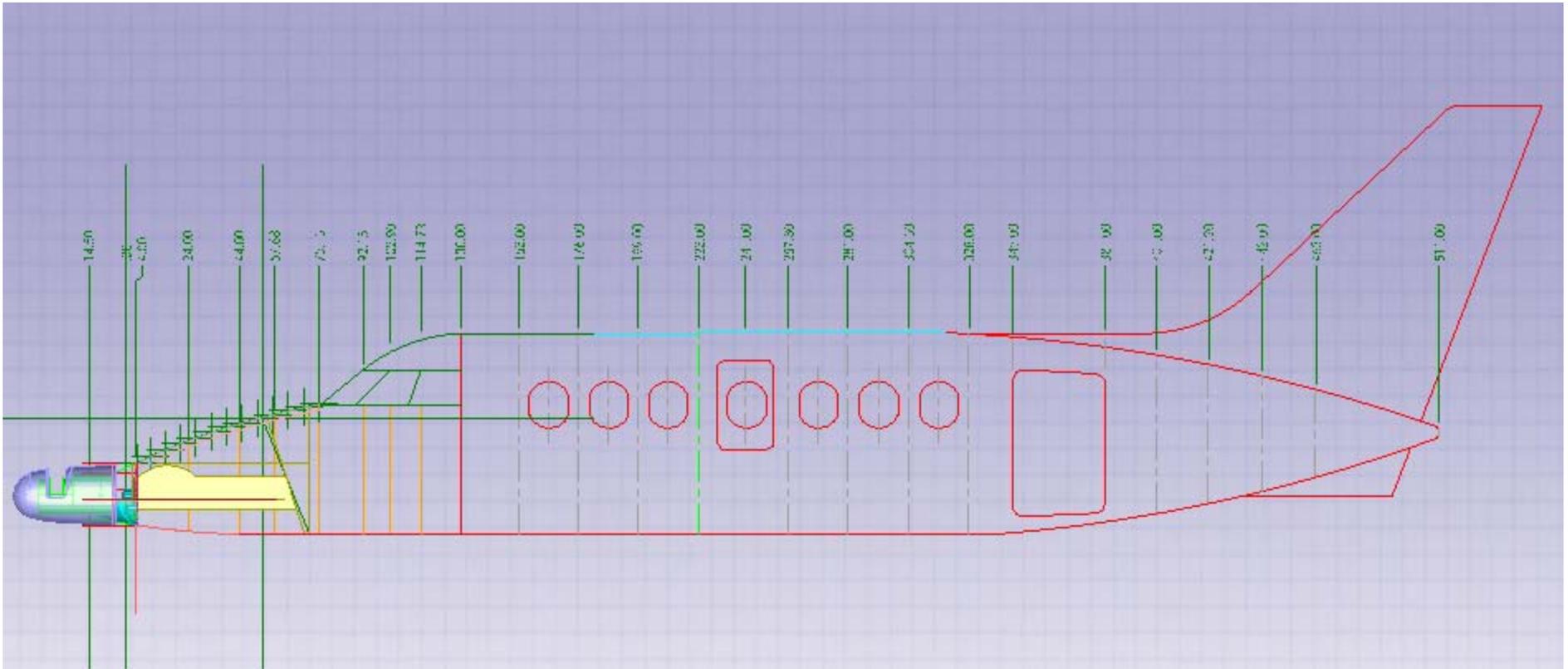
-Spider attachments



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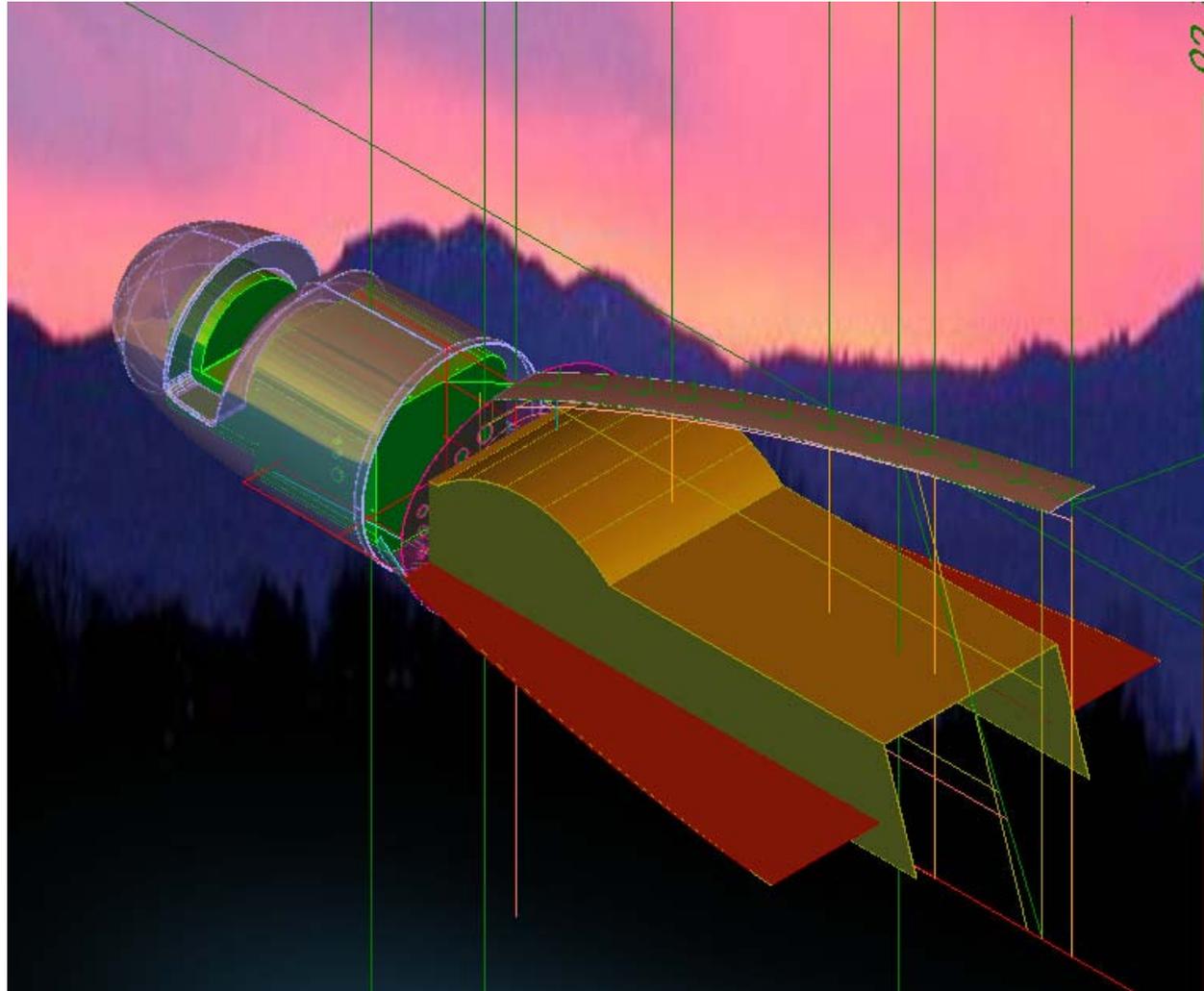
Body tooling finish coat

Airframe overview



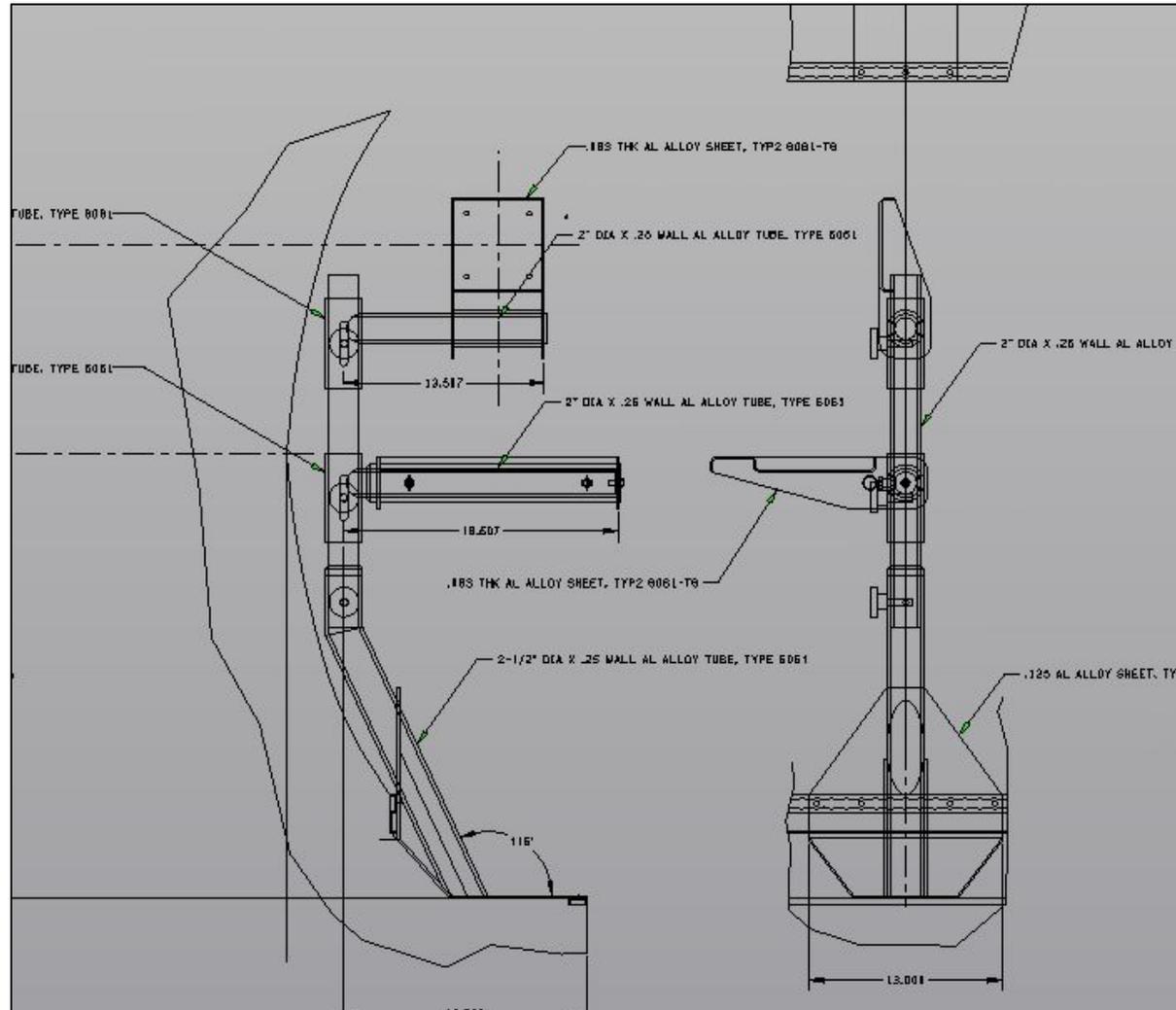
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Fwd fuselage overview



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Workstation



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Workstation Components

Adesso ACK-540



Dell 1740

