

GV Data Communication

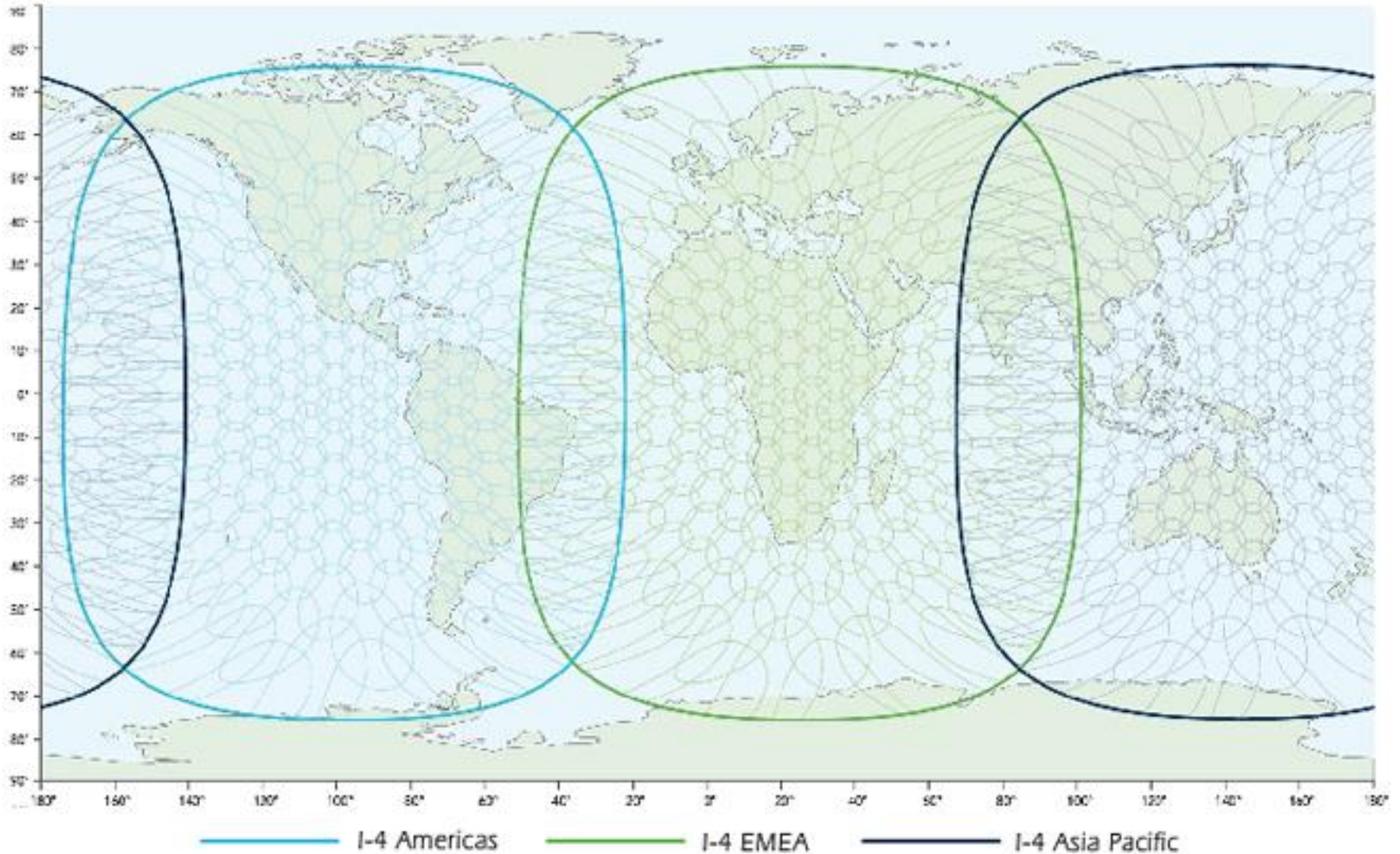
Chris Webster

NCAR/RAF

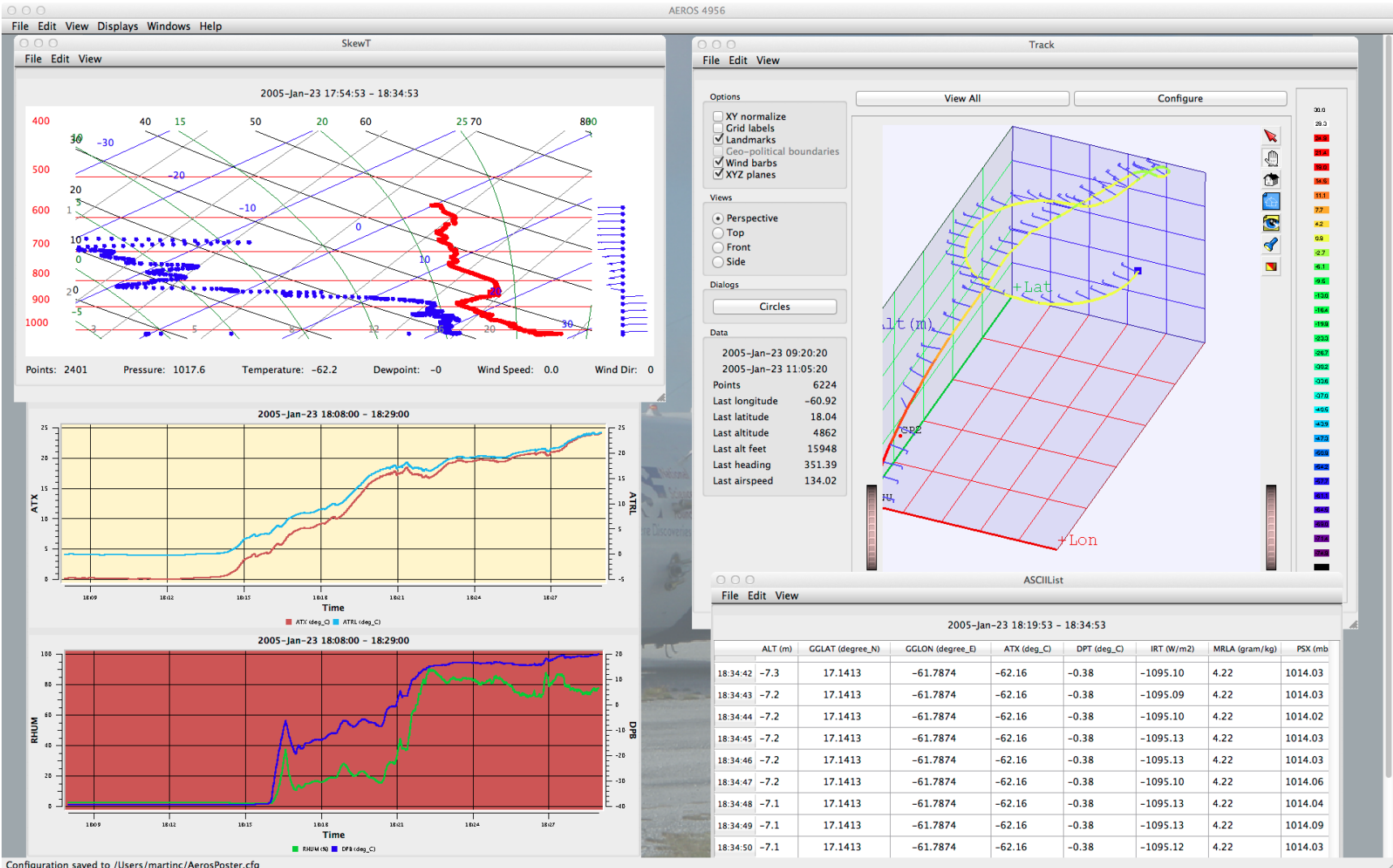
GV – New SATCOM

- Data rate increased from 64kbps to 432kbps
- Cost dropped 80%
- Improved global coverage
- One still cannot VNC to the plane from the ground

Satellite Coverage Map



GV Data Display: Aeros



Downloading Aeros

The screenshot shows a web browser window with the address bar containing `www.eol.ucar.edu/software/aeros`. The browser's address bar also shows the page title "Aeros | Earth Observing Laboratory". The browser's search bar contains "Google". The browser's toolbar includes "Most Visited", "Getting Started", "CNN", "FB", "CF", and "\$\$ Tiny". The browser's status bar shows "UCAR" and "NCAR". The browser's navigation bar includes "Closures/Emergencies", "Locations/Directions", and "Find People". The browser's main navigation bar includes "About EOL", "Our Organization", "Field Projects", "Facilities & Instruments", "Request Facilities", "Data & Software", "News & Events", and "Help". The browser's header bar includes the NCAR and EOL logos, the text "Earth Observing Laboratory", the tagline "Development • Deployment • Data • Discovery", a "Log In" link, and a search box.

Aeros

EOL Facility: Research Aviation Facility (RAF)

Source URL: http://www.eol.ucar.edu/raf/Software/aeros_dnld.html

Maintenance Status: Stable

Developers/Maintainers: CDS/SSG

Used by these EOL facilities: RAF

Application: Display program for both real-time and post-deployment.

Status: Active

Level of Support: Supported

Stakeholders: RAF

Operating System: Windows
Mac
Linux

History

Developed as part of the HIAPER project. Designed to replace WINDS and ncplot, ncpp and xpms2d.

Notes

Many new features are desired to replace some of the netcdf display tools

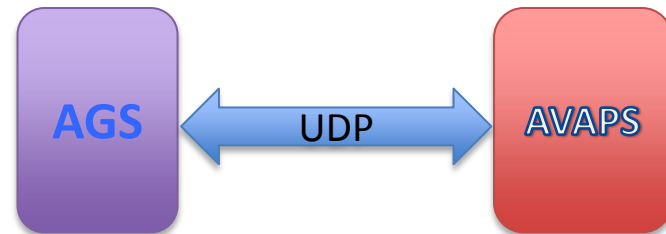
Windows

Remote Instrument Control

- Allows instrument teams to operate their instruments from the ground.
- Independent from our normal data downlink framework (e.g. not available with Aeros).
- Instrument team develops all command and control interface software.
- We will route the traffic.

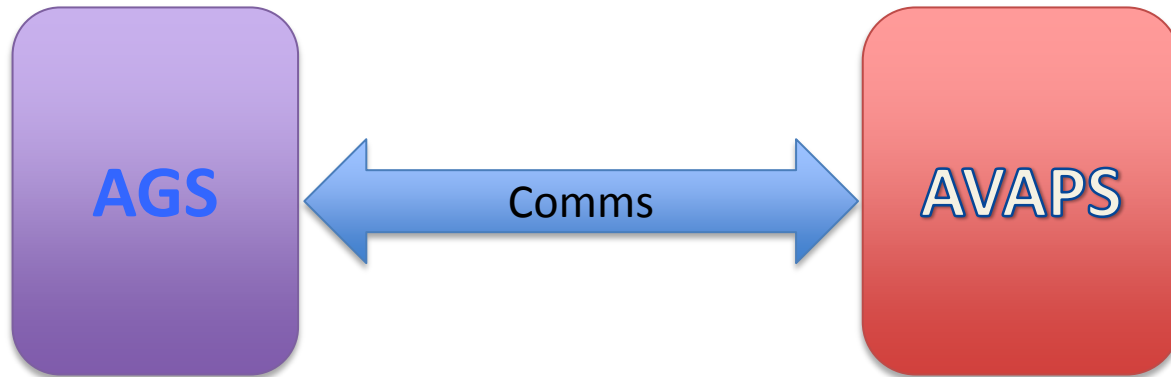
Instrument Protocol

- UDP Datagrams
- Types:
 - Status
 - Command
 - Data
- “Stateless”



Premise

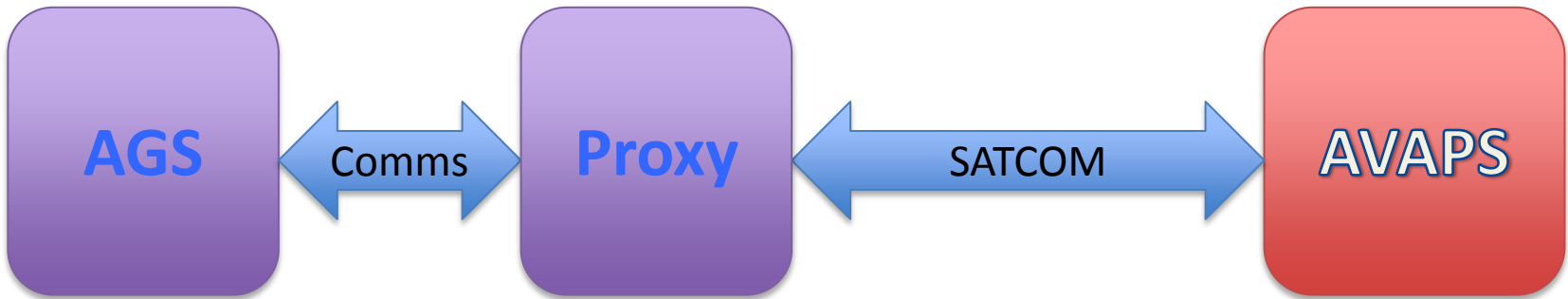
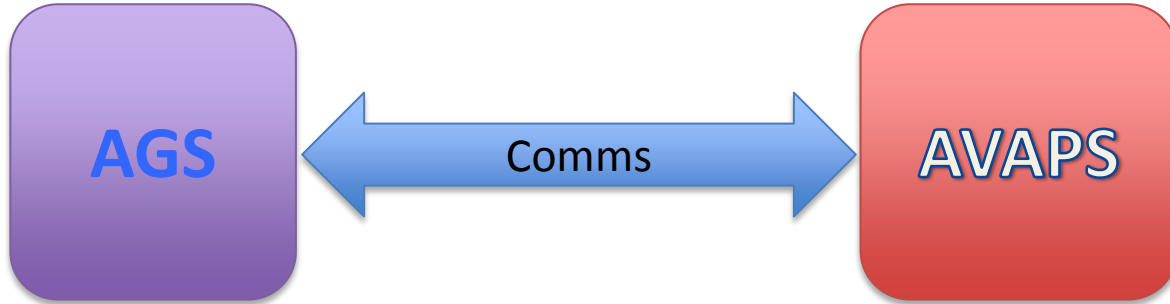
- Instruments paired with remote control programs.
- Instrument teams need to develop/test in their own labs.



Control Program / UI

Remote
Instrument

Premise



Control Program / UI

Remote
Instrument

Questions?

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