An aerial photograph of a city, likely Los Angeles, with a prominent rainbow in the sky. A satellite is visible in the upper right, with several beams of light (some blue, some yellow) radiating from it towards the city. The text is overlaid on this image.

MPAR Non-TAP Options

WG-MPAR Meeting 2010-2
Jud Stailey, Executive Secretary

Non-TAP Options

Background

- FC e-mail to EC Reps 1/13/2010 presented 3 options with pros and cons:
 - NWRT Upgrade (Option A)
 - EQ-36/EMMR Mod (Option B)
 - Technical Assessment Program (TAP) (Option C)
- Requested comments

Non-TAP Options

Background

<i>AGENCY</i>	<i>PREFERENCE</i>	<i>COMMENTS</i>
FAA	Option C	Greatest potential for discovery of innovative solutions
DHS	Option C	Industry competition leads to top-level future technologies development
NOAA/ NWS	None yet	“Option A may be costly, but may be the best option to meet the goals.” Need more info
NOAA/ OAR	Option C	Option B possible if FY11 funding available; Option A if fallback of Option C partnership fails
DoD/ DDRE	Option B	Should wait until EQ-36 is fully fielded
DoD/USN	None	Chose not to comment
DoD/USAF	Option C	Options A & B could be Option C competitors if affordable

Non-TAP Options

Background

Action Item 2010-1.1: Move forward with risk-reduction Option C while exploring the potential for Option(s) B and/or A for contributing further to evaluating/reducing risk associated with the MPAR initiative.

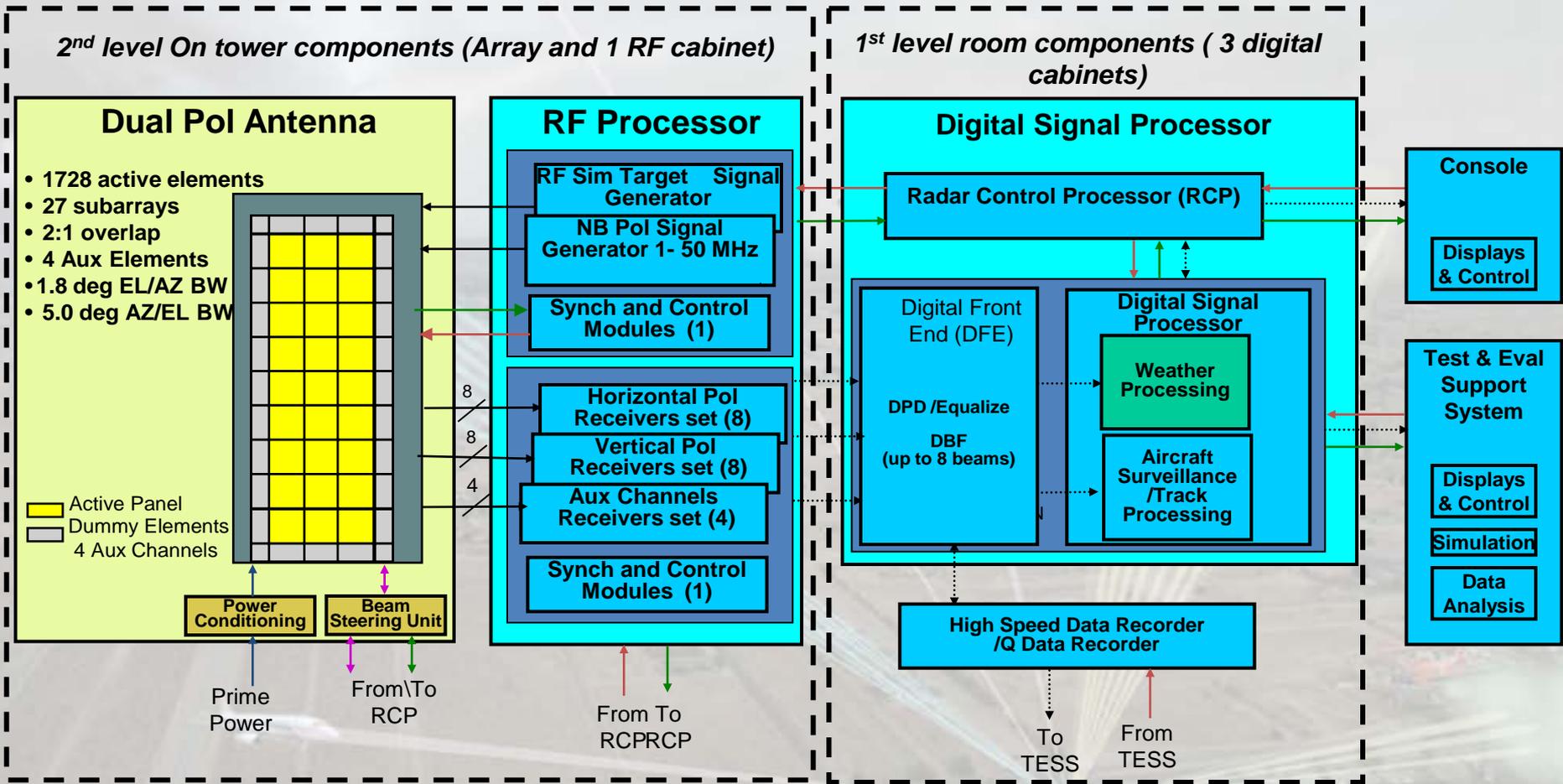
Non-TAP Options

NWRT Upgrade (Option A)

- Nothing specific in EC e-mail
 - Assumptions:
 - Modern technology
 - Fixed location
- Lockheed/LL proposal briefed at last WG/MPAR meeting
 - Antenna based on LL/MACOMM panel
 - ARTIST back end
- Included in R&D Plan

Non-TAP Options

NWRT Upgrade (Option A)

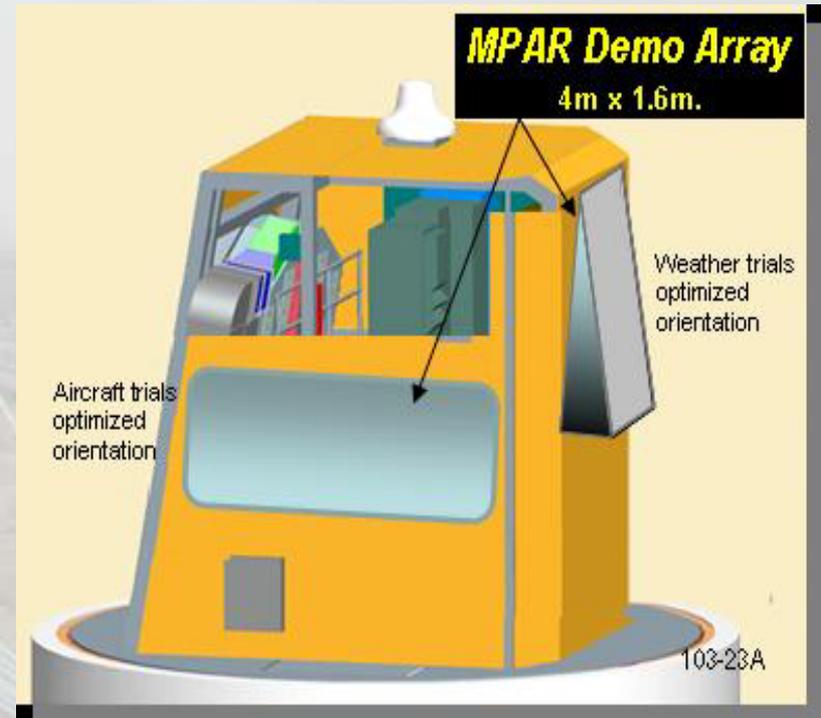


Non-TAP Options

NWRT Upgrade (Option A)

One of several options

- Other panels
- Other back ends



Non-TAP Options

EQ-36/EMMR (Option B)

- Originally proposed by Lockheed Martin in Jan 2009 based on EQ-36
- Later discussions with US Army included Enhanced Multi-Mission Radar (EMMR), the EQ-36 prototype



Non-TAP Options

EQ-36/EMMR (Option B)

Original proposal:

- Common specs:
 - 1024 Elements
 - 3° elevation, 4.3° azimuth beam width
 - 18 months
- Simultaneous Dual Pol
 - ROM \$6M plus EQ-36 cost
- Sequential Dual Pol
 - ROM 12.5 Plus EQ-36

Non-TAP Options

EQ-36/EMMR (Option B)

Original proposal

- Common specs:
 - 1024 Elements
 - 3° elevation, 4.3° azimuth beam width
 - 18 months
- Simultaneous Dual Pol
 - ROM \$6M plus EQ-36 cost
- Sequential Dual Pol
 - ROM \$12.5M plus EQ-36

Non-TAP Options

EQ-36/EMMR (Option B)

Follow-up

- Visits with US Army, Lockheed, SRC
 - Army interest in dual pol for target id
- Access to production EQ-36 unlikely
- Potential use of NRE EQ-36 model
- Potential use of prototype (EMMR)

Non-TAP Options

EQ-36/EMMR (Option B)

Benefits/Drawbacks

- Benefits:
 - Availability of base radar at no cost
 - Potential for cost sharing of modifications
 - Mobile
- Drawbacks
 - Older technology
 - Fixed basic design
 - Possible compromises to suit other users

Non-TAP Options

Exploring the Potential

- Use R&D Plan as a baseline for technical issues
 - After priorities and costs are determined
- Determine which issues could be addressed by the options (including variants).
- Determine ROM costs for each variant
- Factor in
 - Risk factor
 - Priority
 - Cost