



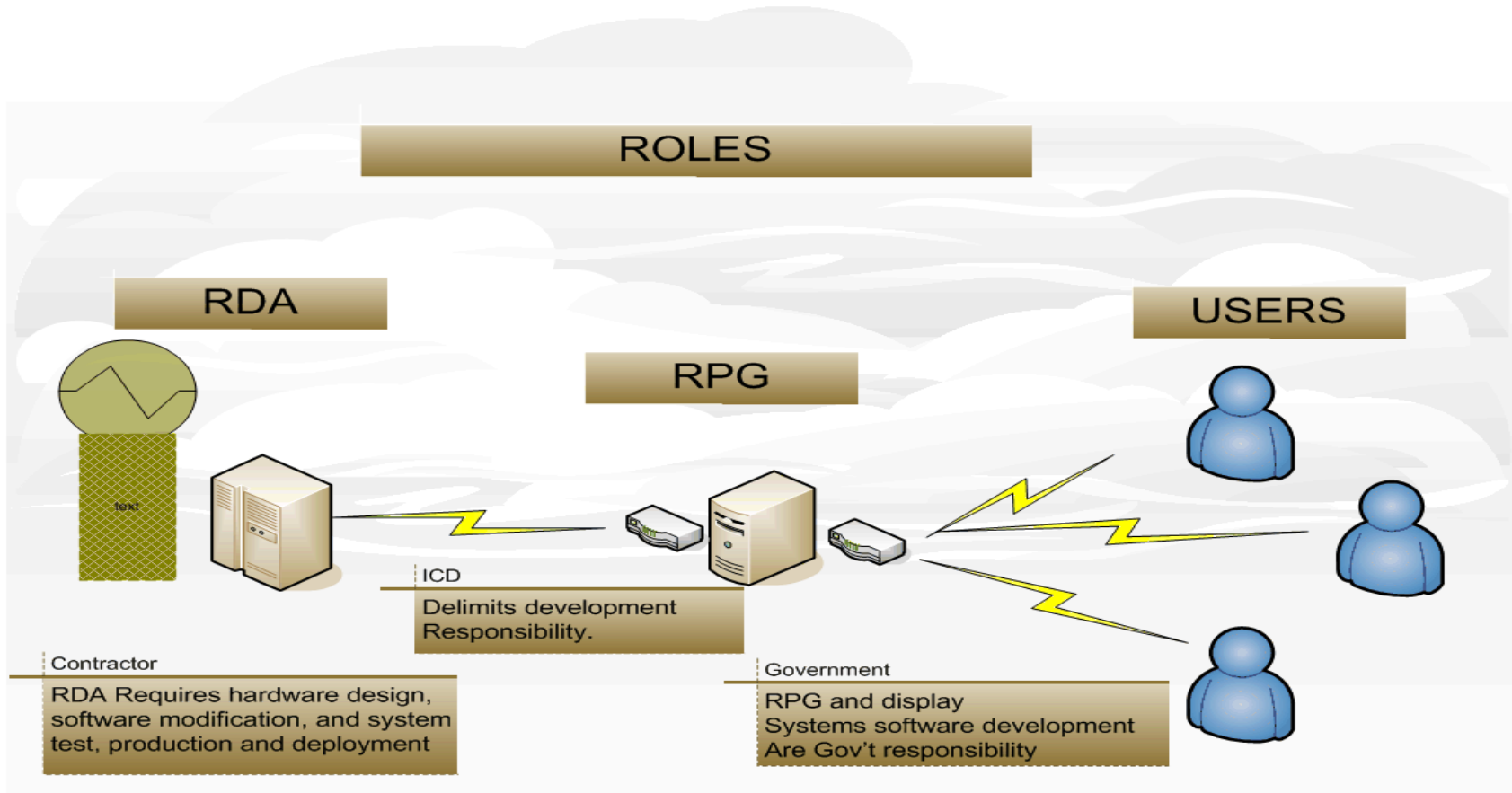
NEXRAD Product Improvement Dual Polarization Status

Office of Science and Technology

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Dual Polarization Team



Contracts

- L3 Communications, Baron Services and Essco responsible for RDA portion of mod
 - Contract office in GSA
- Next major milestone – STRR (TBD)
- Technical issues have delayed start of System Test
 - Contractor developing recovery plan
 - Need to determine overall schedule impact

Dual Polarization Technical Issues

PROBLEM	STATUS	ACTION RESPONSIBILITY	NOTES
Coverage comparison to KCRI (DQ scoring)	Weather data collection to continue with calibration configuration corrections	1. L3 - Corrective Action 2. DQ Team - Evaluation	Iterative approach. Requires L3 calibration/tuning then re-evaluation
	Plan to investigate effects of various thresholding levels on dual pol coverage		
VCP-32 azimuth tolerance alarm, RPG restarts cut	Only occasionally observed for certain Batch mode elevations	SIGMET/L3	In work with SIGMET
	Collected RVP8-RCP8-RPG radial data traffic to trace problem		
	Investigating invalid tagging of radials as "blanked"		
	Contacting SIGMET to assist in debugging this discrepancy		
Short pulse dynamic range 89 dB vs. 93 dB requirement	SIGMET developed candidate algorithm fix for dual pol linear range extension	SIGMET/L3	SIGMET has developed solution, but introduces initial noise; need to evaluate impact of noise; ROC report evaluating impact of reducing 93db requirement.
	Plan to load and test at KOUN this week		
VCP timing measurements out of spec	Researching timing requirements	L3/ROC	Investigation continues
	Continuing to investigate		
Insufficient RVP8 CPU margin with SZ-2	Candidate replacement motherboard/CPU resolves processor saturation issue	1. L3 - Identify Alternatives 2. Gov't (Thru contracts) select alternative	L3 initial candidate board had adequate capacity (45% Ave Utilization, 58% peak utilization). Contractor impact evaluation due 11/20/09
	Researching other available candidates for Government consideration		
	Decision required to either refresh RVP8 CPU or defer SZ2 vertical channel comps		
Receiver noise figure high	Resolved with installation of engineering prototype LNAs at TR Limiter	L3 has parts on order	Fix in process, but delivery of required enclosure not till 11/16/09
	Replacement with production LNA module packaging planned in November		
Flash AME function hangs	Fix in work this week	L3	Fix in work
Contractor Front-end Filter may result in lost data	OOS/ROC concerns in review by the Contractor	L3	L3 response due this week; evaluate with ROC
Required Maintenance procedures violate OSHA standards	Government report forwarded to Contractor	L3	Require contractor response

Dual Polarization Summary

- Iterative progress being made
- Government subject-matter-expert consultation has proven invaluable
 - Need operational assessment of the effect of reduced sensitivity for deployment decision
- Schedule impact yet to be determined

NPI Science Improvement Activity

- DOC directed no NPI funding be spent on Program Management and Science Improvement in FY10 and FY11
 - All funding directed to Dual Polarization
- Impacts support by OS&T/SEC, OHD and NSSL among others
- NOAA/NWS management assessing alternatives