Data Distribution/Ingest

Carissa Klemmer

NCEP Central Operations

October 25/26, 2016

Fall COPC Meeting
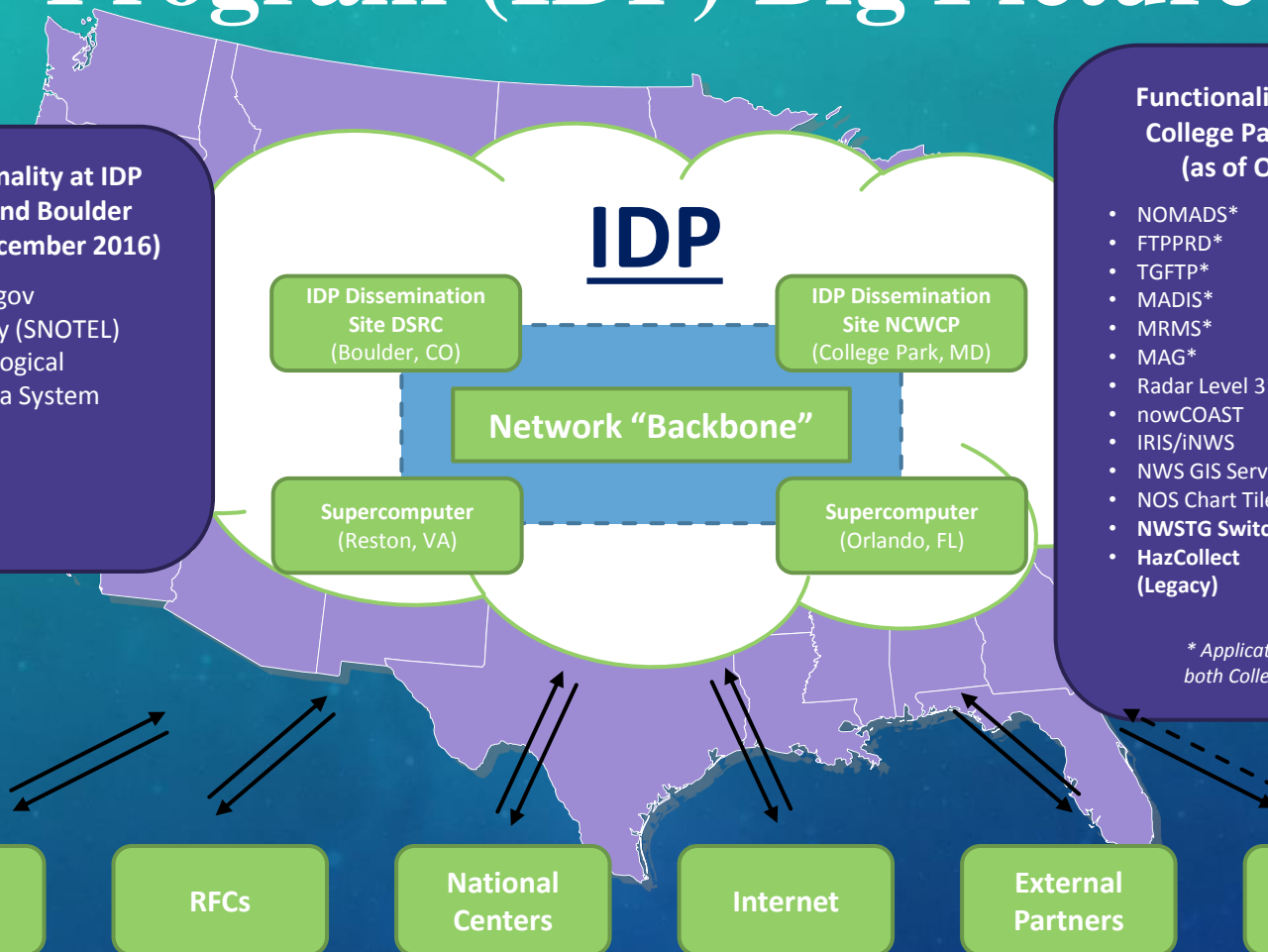
Integrated Dissemination Program (IDP) Big Picture

IDP

Future Functionality at IDP College Park and Boulder (Expected By December 2016)

- www.weather.gov
- Snow Telemetry (SNOTEL)
- Hydrometeorological Automated Data System (HADS)
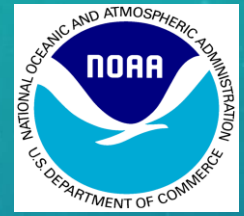- HF-FAX
- SOCKET/CMHP
- NWS Chat

IDP Dissemination Site DSRC (Boulder, CO)

IDP Dissemination Site NCWCP (College Park, MD)

Network "Backbone"

Supercomputer (Reston, VA)

Supercomputer (Orlando, FL)

Functionality in place at IDP College Park and Boulder* (as of October 2016)

- NOMADS*
- FTPPRD*
- TGFTP*
- MADIS*
- MRMS*
- MAG*
- Radar Level 3*
- nowCOAST
- IRIS/iNWS
- NWS GIS Services
- NOS Chart Tile
- **NWSTG Switch***
- **HazCollect (Legacy)**

* Application operational in both College Park & Boulder

| WFOs | RFCs | National Centers | Internet | External Partners | CWSUs / CMD CTR |

"OneNWS" Network

The future OneNWS network will consolidate all operational networks (OPSnet, Regional, etc.) as single managed network under NCEP Central Operations (NCO).
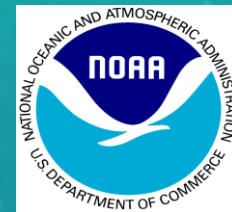
Site Redundancy

- NCEP is targeting a December 31st deadline to obtain two fully redundant, independently functioning, IDP systems
  - The legacy NWSTG/TOC systems had been running out of Silver Spring since 1990, and on October 18th they were loaded onto a moving truck headed for Colorado
- Over the years stand alone efforts created weaknesses in the infrastructure which made us vulnerable to major enterprise wide outages
- The concept for IDP was elevated to Congressional levels and it was agreed that a need exists for organizational change and the development of a reliable and scalable NWS dissemination infrastructure to sustain 24 hours/7 days a week (24/7) mission operations
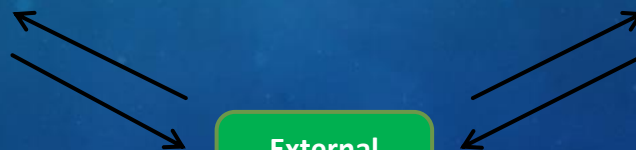
Site Redundancy – COPC Impacts

- IDP will offer site redundancy for both incoming data and outgoing data
- All IDP partners have been requested to feed both systems independently, including the OPC's
- A dual feed will be extremely important to support the vision of the NWS Telecommunications Gateway
- If partners will not be able to support dual feed it will leave all partners vulnerable to data outages
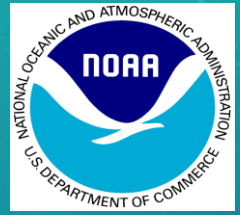
External Partners

IDP Dissemination Site DSRC
(Boulder, CO)

IDP Dissemination Site NCWCP
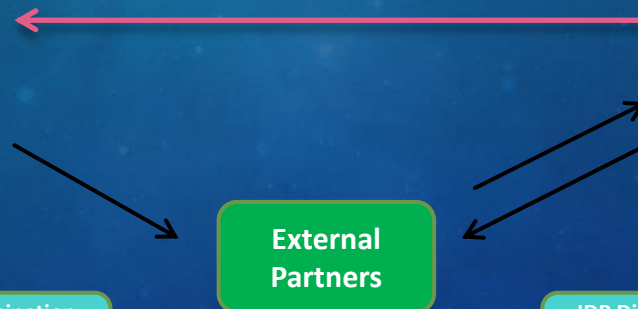(College Park, MD)
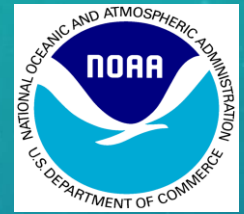
Site Redundancy – COPC Impacts

- A single feed will require NCEP to sync the data from the primary to the non-primary
- In the event of an unplanned site outage there would be data loss due to DNS failover limitations
  - Data loss of any type for any OPC can have devastating consequences
- NCEP will be internally evaluating future modification of our architecture to counteract data losses
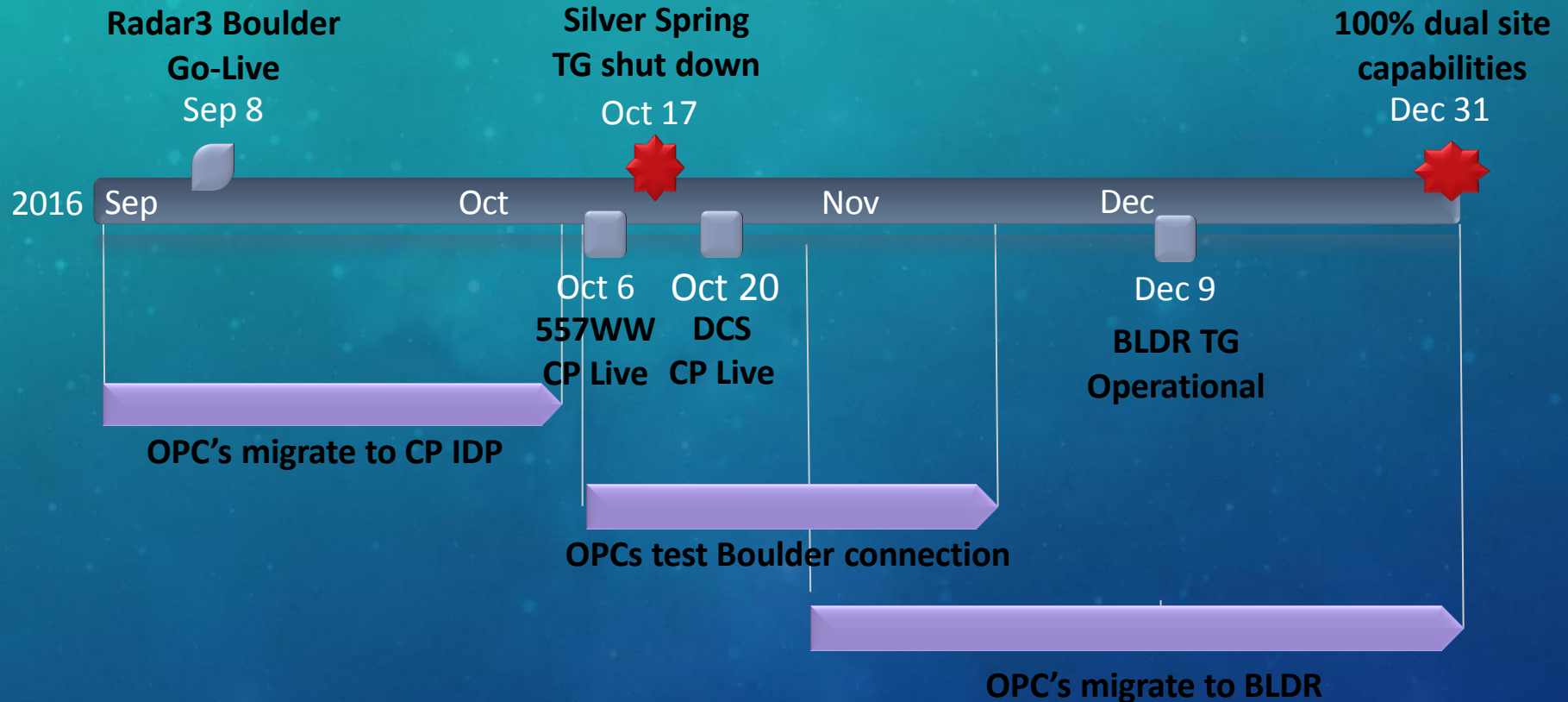
IDP Dissemination Site DSRC (Boulder, CO)

External Partners

IDP Dissemination Site NCWCP (College Park, MD)

IDP Timeline

Radar3 Boulder Go-Live
Sep 8

Silver Spring TG shut down
Oct 17

100% dual site capabilities
Dec 31

2016   Sep   Oct   Nov   Dec

Oct 6
557WW CP Live

Oct 20
DCS CP Live

Dec 9
BLDR TG Operational

OPC's migrate to CP IDP

OPCs test Boulder connection

OPC's migrate to BLDR
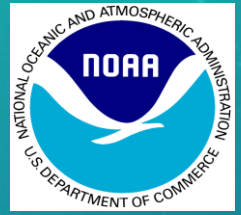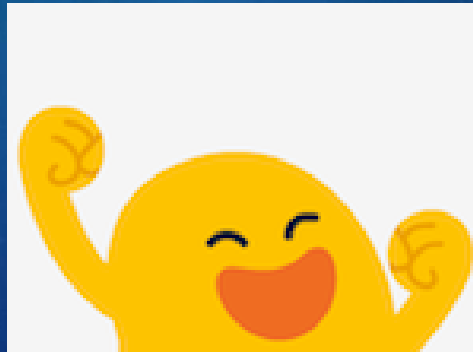
COPC IDP Status

- FNMOC successfully transitioned to College Park IDP

- NAVOCEAN successfully transitioned to College Park IDP

- 557WW successfully transitioned to College Park IDP

- NESDIS successfully transitioned to College Park IDP

- Boulder stand up is ongoing now with active participation from each OPC

QUESTIONS ?