



NWS Participation 2015 Pan Am Games

23rd U.S./Canada Great Lakes Operational Meteorology Workshop
Grand Rapids, MI – August 2015

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Outline

- NWS Goals
- Operational Takeaways
- Decision Support Takeaways



NWS Goals

- Extension of the Forecaster Exchange Effort under the NOAA/EC Bi-lateral Agreement
- Gather and develop best practices for provision of decision support services for special events
 - including science and tool development; forecast strategies; and service delivery tools and strategies with an emphasis on nearshore marine forecasts and severe storm forecasts



NWS Participation



- 3 NWS Employees embedded at OSPC
 - Greg Mann – SOO WFO Detroit – July 8-17
 - Judy Levan – WCM WFO Buffalo – July 10-17
 - Dan Miller – SOO WFO Duluth – July 14-23
- Provide expertise for mesoscale forecasting – especially nearshore marine and convection – and decision support
- Dedicated Workstation Position



NWS-EC/MSC Common Operational DSS Challenges for Large Events:

- 1) Weather People/Organizations Getting a Seat at the Table
- 2) Flexibility in Operations Plan(s) with minimal specificity in written documents (i.e. allow your experts to be experts!)
- 3) Building Relationships and Trust/Rapport between weather experts/briefers and venue managers





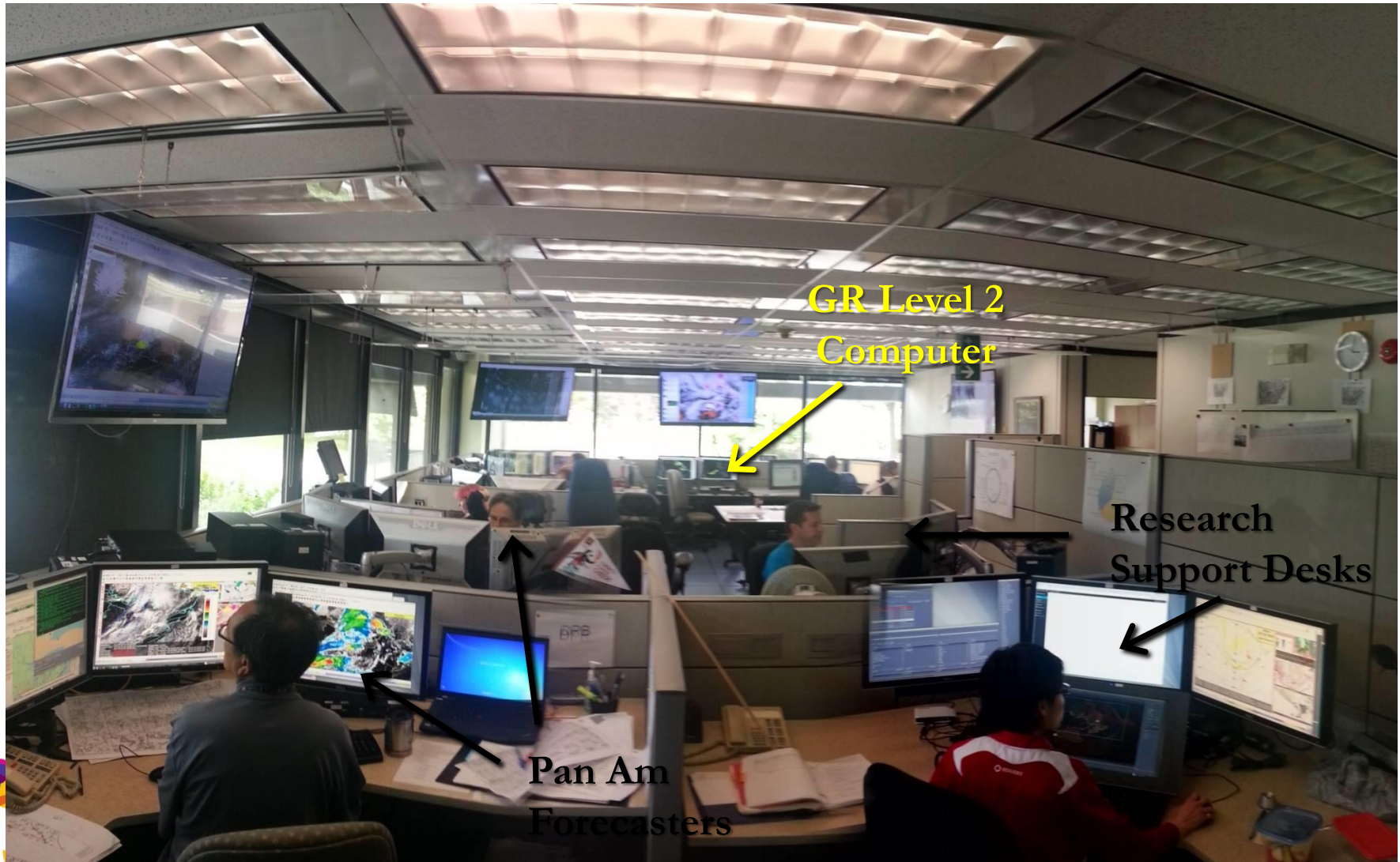
TORONTO 2015
Pan Am/Parapan Am

Canada

Operational Takeaways



NWS Operational Role in Pan Am 2015



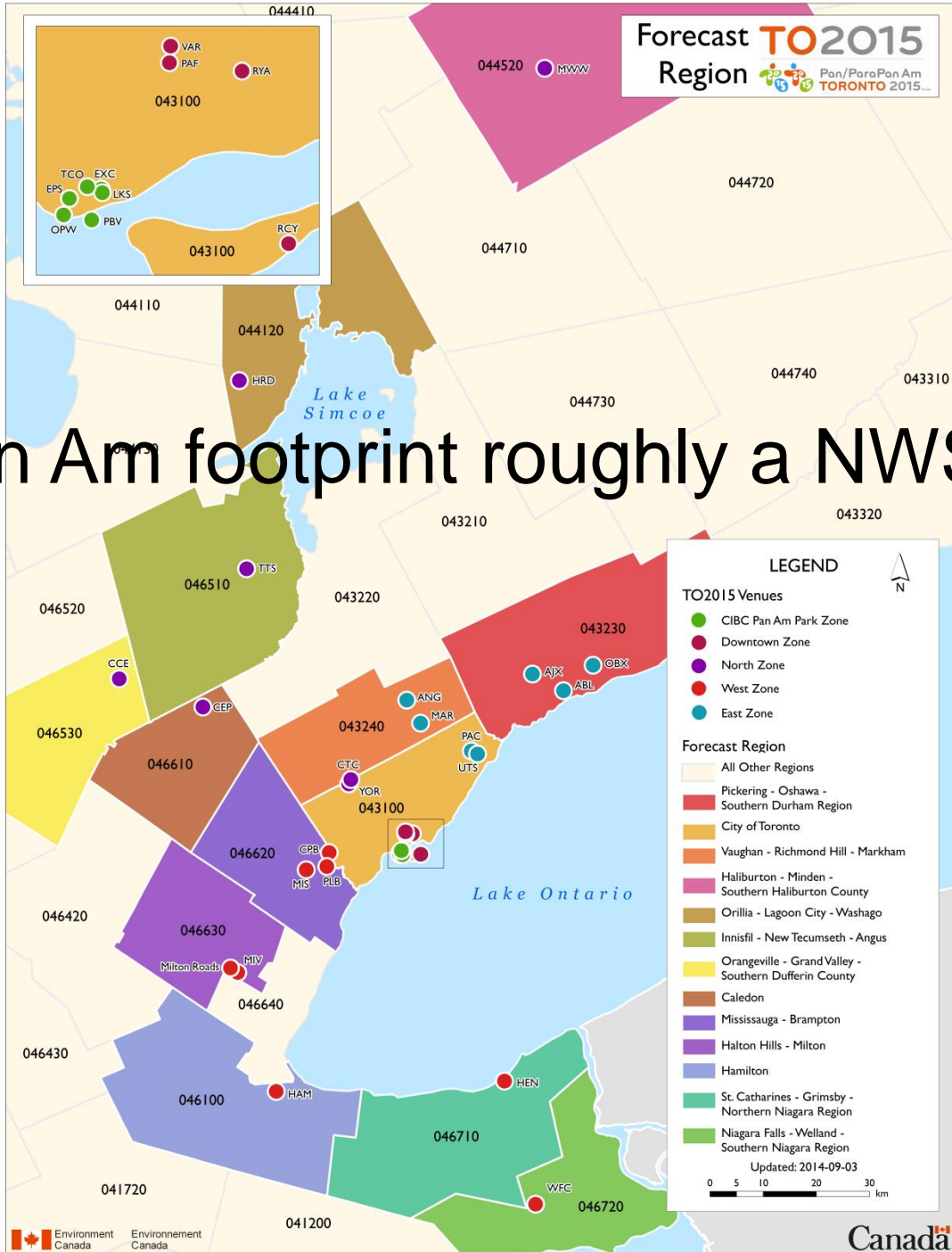
GR Level 2
Computer

Research
Support Desks

Pan Am
Forecasters

NWS Desk behind and to the left on this picture
Most interaction with Pan Am and RSD Desks

Pan Am footprint roughly a NWS CWFA



Met Workstations

- Ninjo Workstation still a work in progress
 - inability to view and interrogate non CMC sources
 - cumbersome interface
- SCRIBE inputs married to GEM suite
 - requires substantial manual intervention if GEM suite solutions are not preferred
 - Venue forecasts were separate and independent of routine forecasts
 - Separate SCRIBE - so no ingest of current public forecast as a first guess for venue location downscaling
- Access to internet sources including webcam integration



Operational Takeaways

- Point forecast experience
 - Terminal forecast mindset
 - Concepts of hourly weather changes embedded within the forecast were an operational hurdle
- Lack of a priori venue specific criteria – needs were discovered rather than defined
 - Examples: wind gusts > 25 kt started to topple free standing fencing with Pan Am banners, > 1 mm rain prevented use of the baseball diamond due to turf concerns, light postponed sailing events (< 4 - 6 kt), winds affected track meeting for official timings (wind aided times)
 - SCRIBE was not configured to handle some of the thresholds – creating an additional required layer of communication to the briefers (via phone or chat)



Most Active Weather Days:

Saturday/Sunday 18-19 July 2015

Saturday July 18: Heat / Humidity

Women's Marathon had many drop-outs
Dying MCS approaching from Lower MI
Weakly forced mesoscale models poor

Sunday July 19: Heat / Humidity

Approaching front-stronger forcing
Lightning/potential for severe t-storms all venues

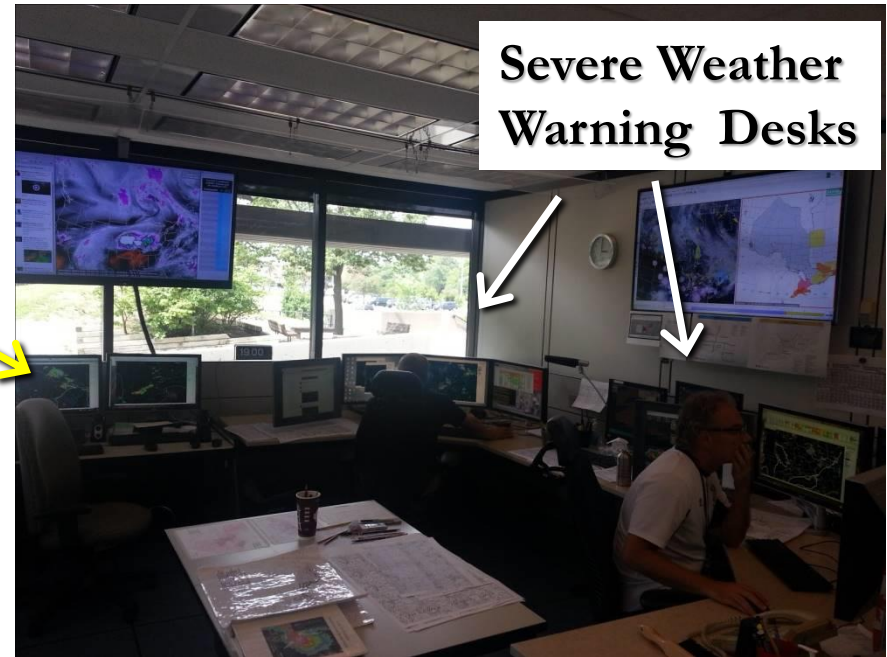


Canada

Sunday 19 July 2015

GR Level 2 Computer
2 minute scans from 88Ds
Dynamic Cross Sections
Worked more closely with warning forecasters

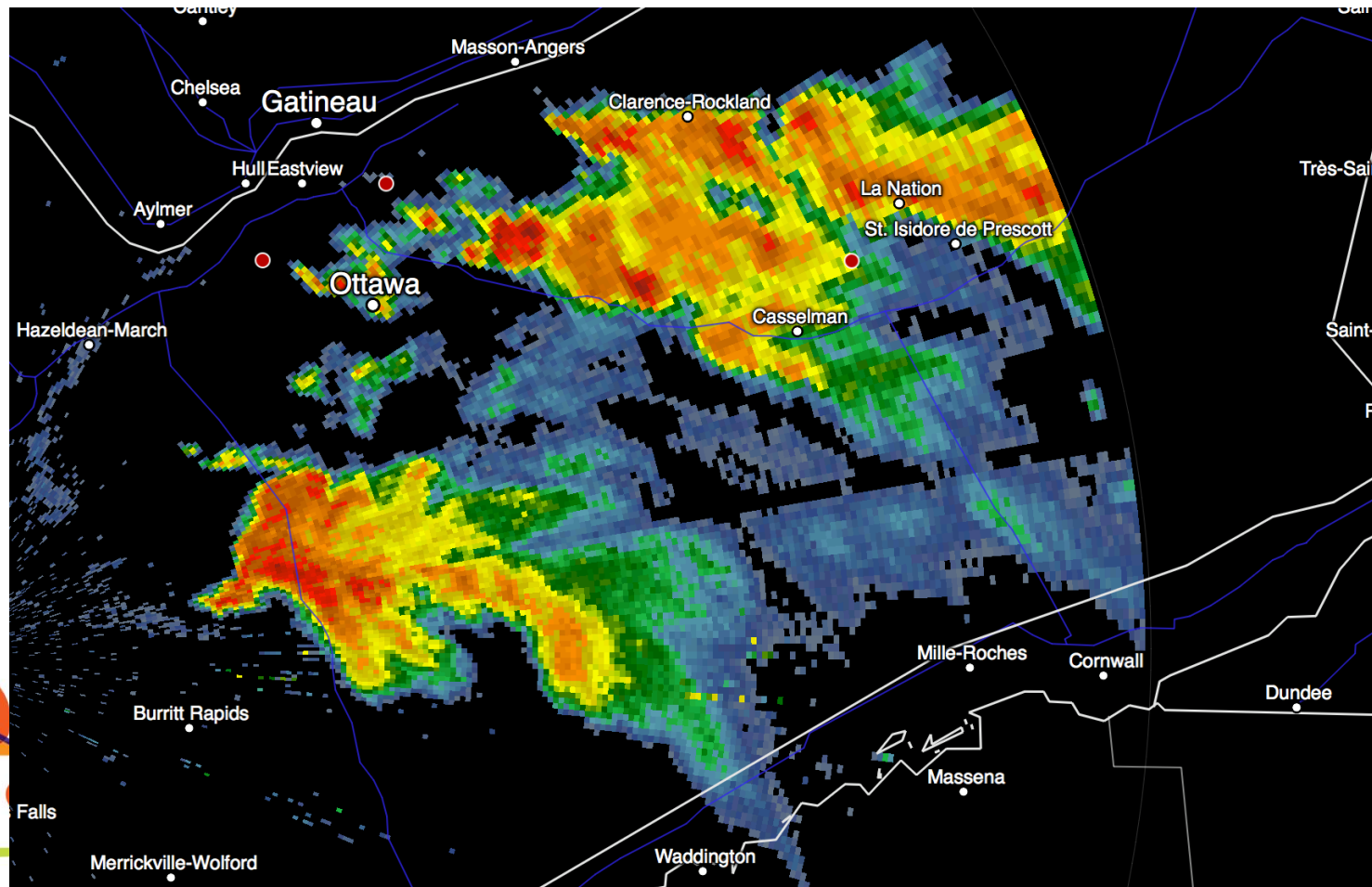
Student taking calls
Reports and monitoring
Social media



Sunday 19 July 2015

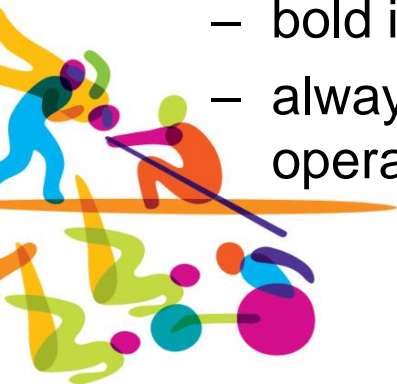
Meanwhile... in eastern Ontario

Tornadic supercells just south of Ottawa



RSD Integration

- Evaluation of new tools and techniques was limited by the lack of tangible weather
 - introduced OSPC to WSR-88D level-2 data via GR2Analyst
- Routine new products like convective weather outlooks were not streamlined into operational production and dissemination system and required multiple steps
- NexGEN process very labor intensive at the moment
 - adaptation to gridded underlayment not yet established
- Excellent proving ground effort
 - bold integration of operational test bed into operations
 - always challenging testing new concepts at the speed of daily operations





Environment
Canada

Environnement
Canada



Canada

Decision Support Takeaways



Decision Support

- Multiple client requirements at two centres with independent briefing teams
 - Main Operations Centre (MOC)
 - Pan Am organizational level
 - Venue specific concerns
 - Unified Command Centre (UCC)
 - Security
 - Public Sector support



Decision Support



- Main Operations Center (MOC)
 - Located lakefront Toronto
 - Briefing Team:
 - 5 person, bilingual
 - Staffed during all MOC open hours (6AM-10PM)
 - Scheduled briefings 7AM, 1PM and 5PM



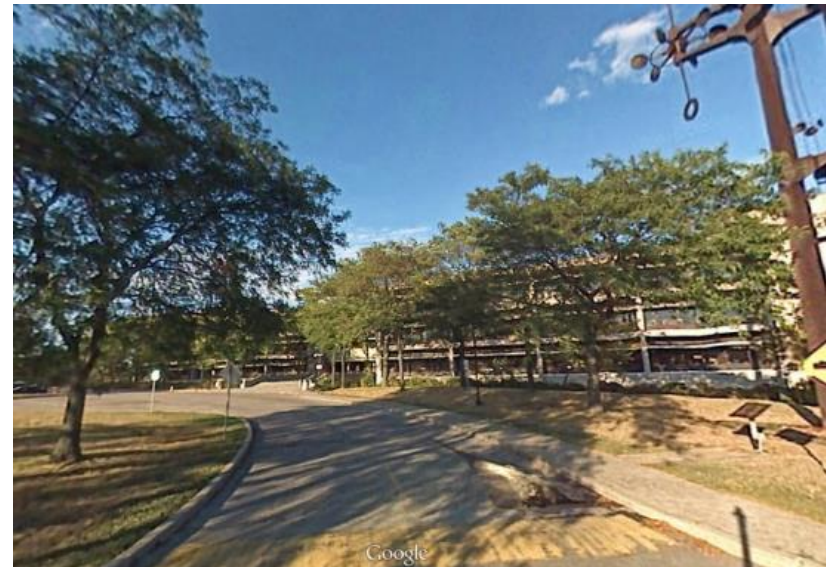
Decision Support

- Unified Command Center (UCC)
 - Located at OPP Brampton
 - Briefing Team:
 - 2 person team at UCC
 - Staffed 9AM – 7PM
 - Scheduled briefings 2:30PM and 6PM



Decision Support

- OSPC
 - Forecast desk provided support during Briefing Teams' "off-hours"
 - Scheduled briefings with UCC 6AM
 - Briefing Forecaster



DSS - What worked

- Full Scribe Workstation at Briefing locations
- Preparations before the Games – climatology of severe weather
- NWSChat used as communications tool
- Teamwork in the OPSC operations area
- MOC Briefing Team
 - Selection
 - Training
 - In addition to SCRIBE workstation, large screen display attached to laptop



DSS - What could have worked better

- Identify Core Partners and their needs
- “Impacts-catalog” for different venues
- Closing the loop between briefers and forecasters
- UCC Hours of operation
- Team of Pan Am forecasters at OSPC
- Accepted / sole use of NWSChat
- Daily review of blogs to determine emerging issues



Summary

- Fantastic effort by OSPC
 - showcased the capability and talent
 - staff was very adaptive and responsive to discovered client needs
- Forecasting challenges abound with the venue diversity presented by Pan Am
- Great opportunity to immerse in OSPC operations





??? Questions ???

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