# The Global Weather Notification System

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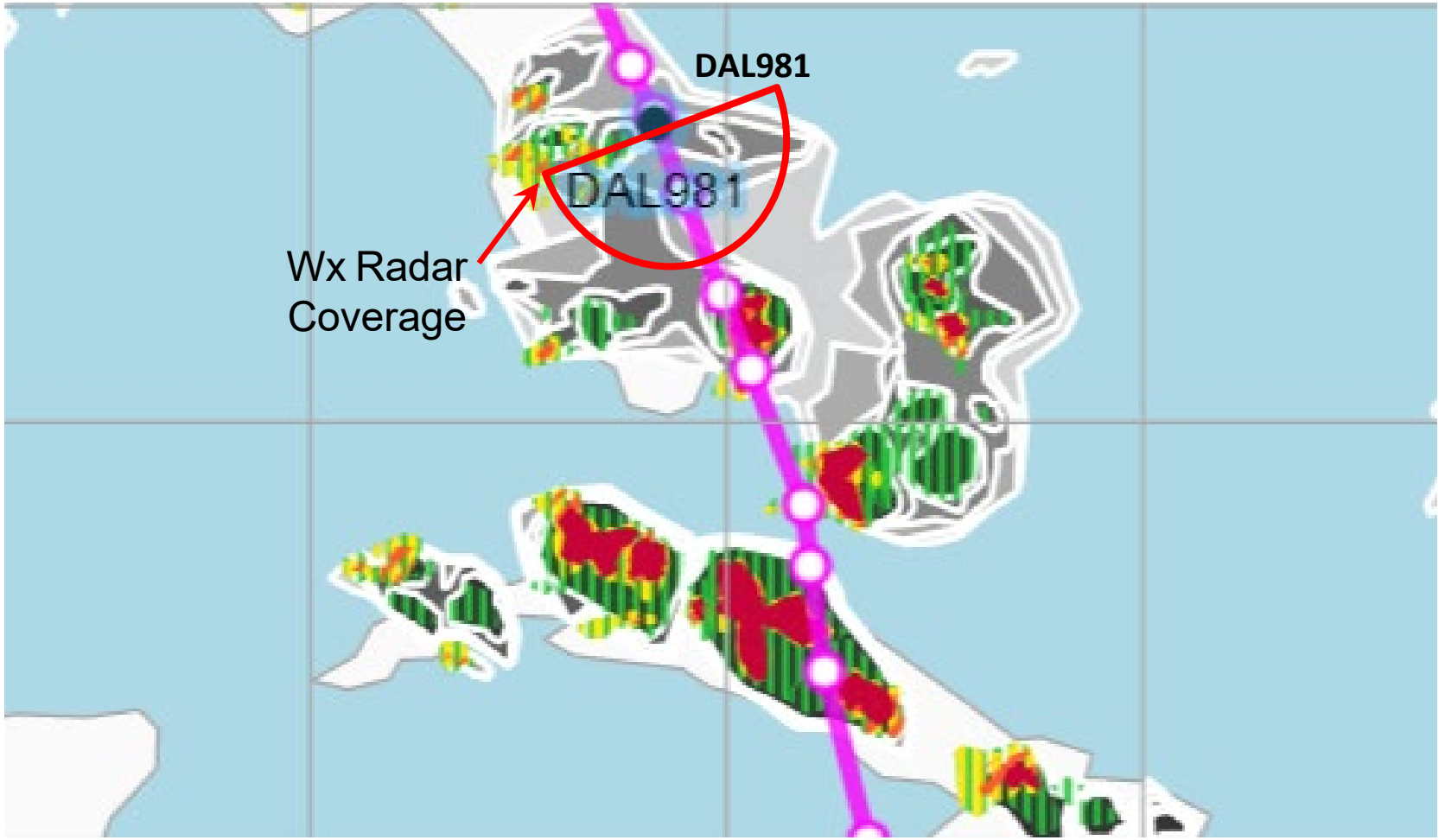
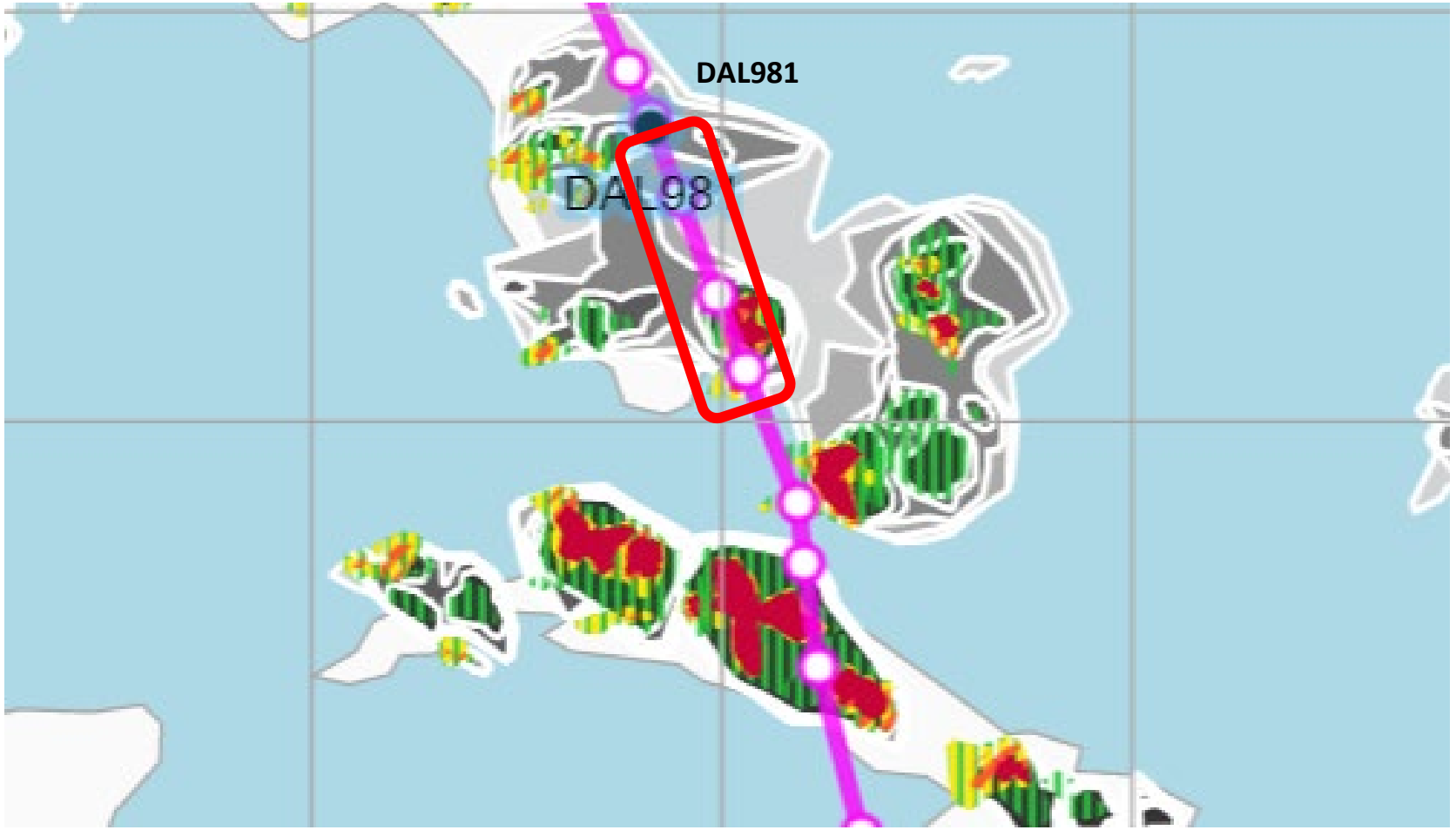
# Onboard Radar look-ahead horizon 20min (~160nm)




Background image shows ROMIO pilot IPad demonstration display of Cloud Top Height (CTH), in grey scale, and Convective Diagnosis Oceanic (CDO), in color.

# Projection window 32min (~240nm) and 60nm wide




Notification Message:

17 Jun 2019 23:02Z DAL981 FL328 heading 159, Moderate Convection ahead at 27.33 -80.82, Cloud Top Height at FL358.

# The Global Weather Notification System

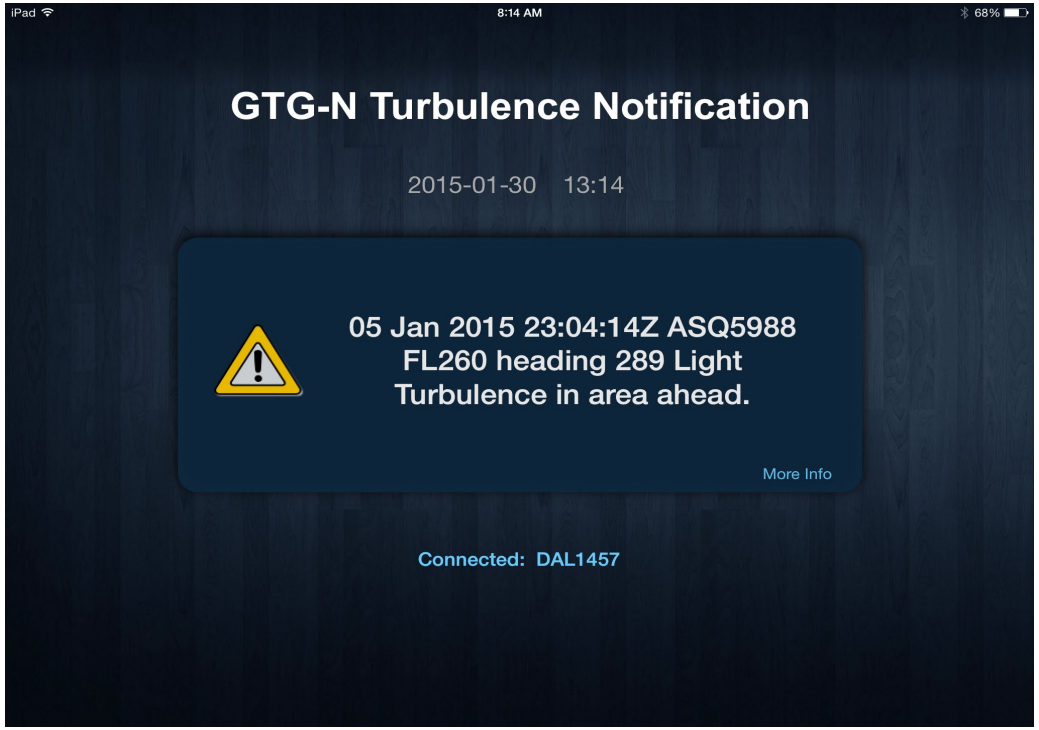
- The system attempts to anticipate whether aircraft will soon encounter or be in close proximity to predicted or observed adverse weather conditions.

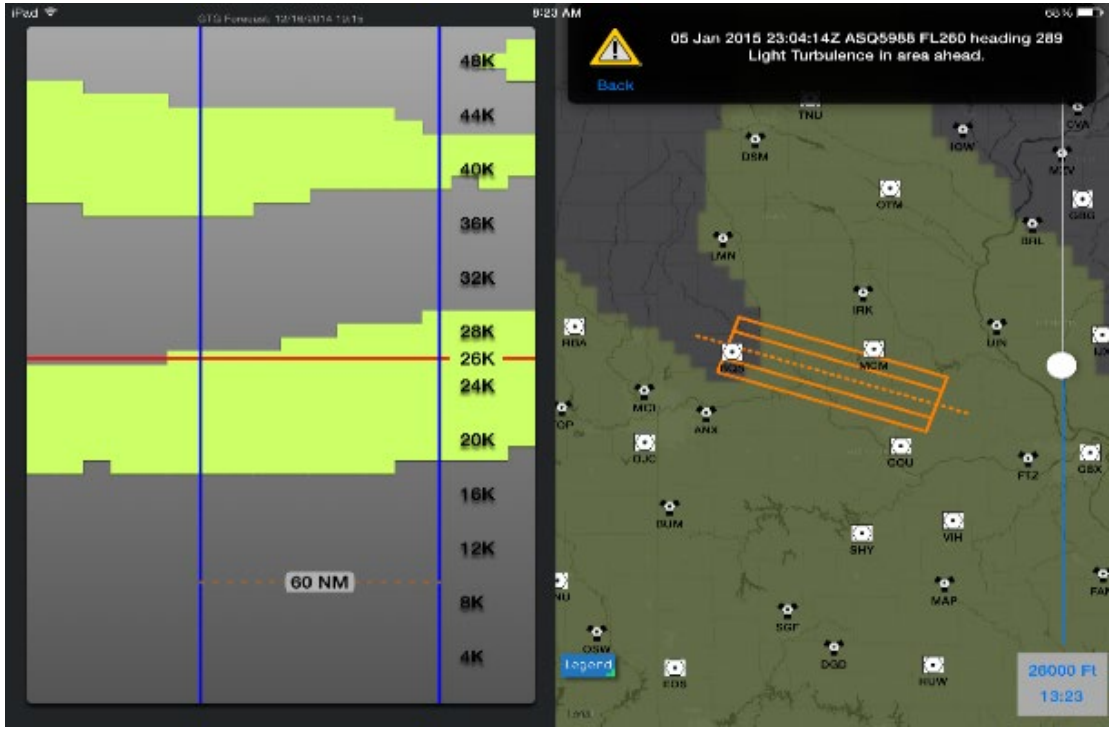
- Projects each aircraft's position forward in time (based on the aircraft’s flight plan, current speed and heading) and calculates a qualitative categorical severity (examples: ‘light’, ‘moderate’, ‘severe’), based on a given weather grid and parameterized thresholds, along the aircraft’s path.

# The Global Weather Notification System

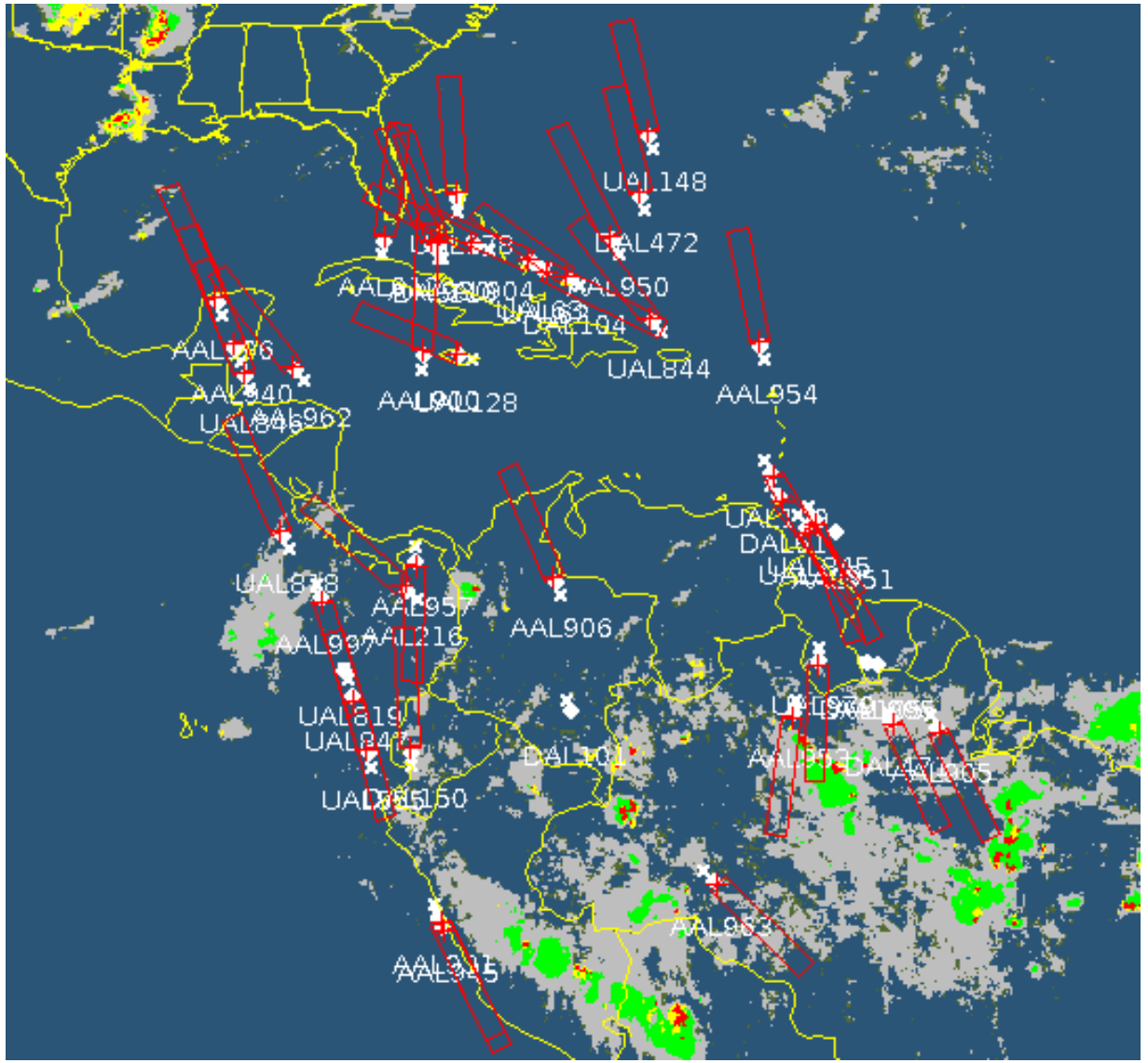
- Runs on the ground ensuring that a large number of aircraft can be processed in a timely manner frequently and large weather grids are not a strain for cockpit bandwidth
- Creates a notification that is designed to give pilots a quick “heads up” message that allows them to seek out additional information, such as an updated weather map or ensuring seat belts are fully fastened for passengers, and is not to replace In-Flight Weather Advisories from official sources.
- This is a novel way to present weather information, by only drawing pilot attention to adverse weather hazards when predicted to be in close proximity in the near future.

# Global Weather Notification Demonstration Display



# GlobalWeatherNote running in real-time with CTH/CDO



# Future – Going From Development to Operations

**Meeting with industry to discuss implementation options for the oceanic CTH/CDO weather products and the Global Weather Notification System:**

**May 23rd & 24th 2022, Boulder CO**

Global Weather Notification Implementation options include:

- GA Aircraft have different implementation specifics. Likely only GA aircraft registering a flight plan can be tracked by the system and be eligible for notifications.
- Exact method for receiving/viewing the notification on the target aircraft will be implementation and aircraft dependent.
- Different possibilities for pilots to pre-register their flight to receive notifications, either manually (by flight) or automatically (by Airline).
- Add additional adverse weather data information. The system can handle multiple adverse weather grids at the same time.

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