

Know the enemy, know yourself; your victory will never be endangered. Know the ground, know the weather; your victory will then be total.

Operational Weather Forecasting
Dynamic Decision Making
&
Wildfire Mitigation

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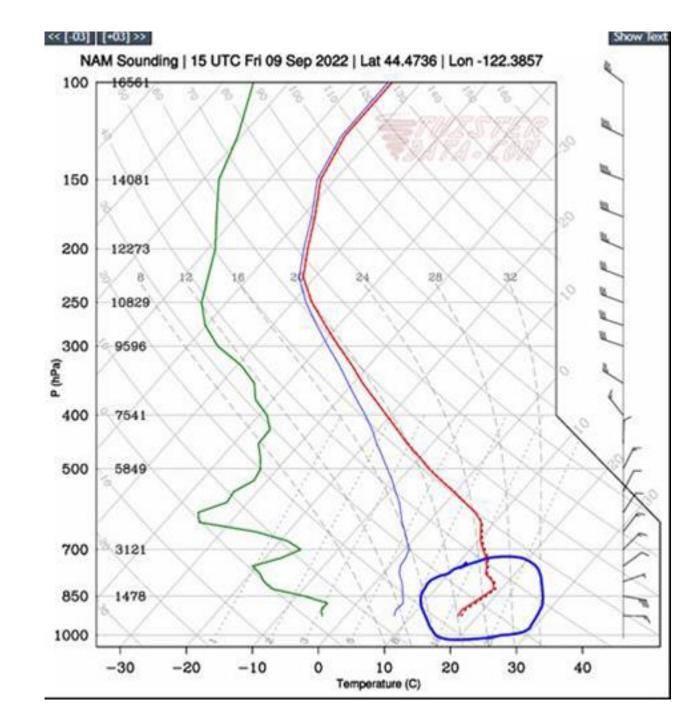
Safety & Compliance

Manager

Consumers Power Inc.

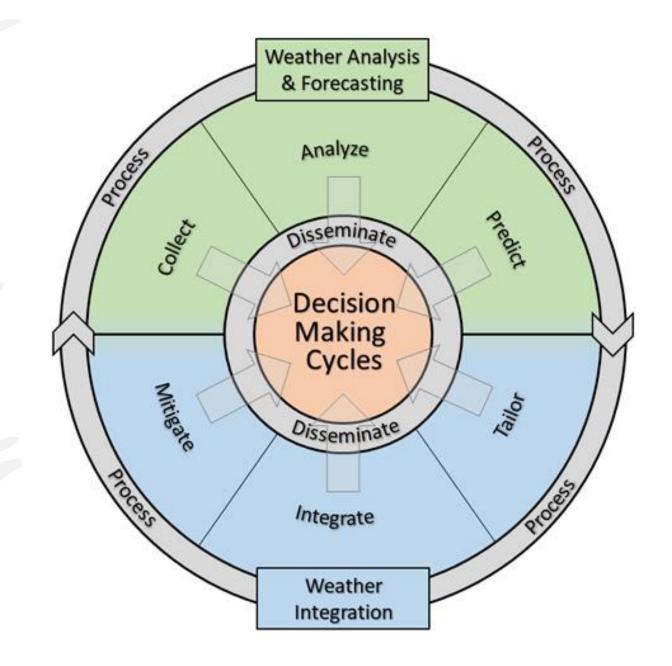
Willamette Valley, Oregon: Summer 2022

- Hot & Dry conditions coincide with forecast for strong east winds.
 - Forecast indices similar to wind event that caused 2020 wildfires.
- CPI primed to conduct Public Safety Power Shutoff at a moments notice.
 - Line Crews forward deployed to hazard areas.
 - Weather conditions monitored continuously.
 - Dispatchers ready to enact PSPS via SCADA.
- Dangerous Conditions DO NOT Develop.
 CPI DOES NOT Conduct Public Safety Power Shutoffs.
 - Other utilities in region DO conduct Public Safety Power Shutoffs w/ some starting at 0300.



What is Operational Weather Forecasting?

- Analyze weather conditions, prepare forecasts, issue weather warnings and brief weather information to pilots
- Observe, record and transmit environmental observations
- Read and interpret weather satellite imagery, climatology reports, computerized weather prediction models and Doppler weather radar imagery
- Understand war fighter tactics and its relationship to weather conditions



Making Important Decisions in Real Time: OODA Loop

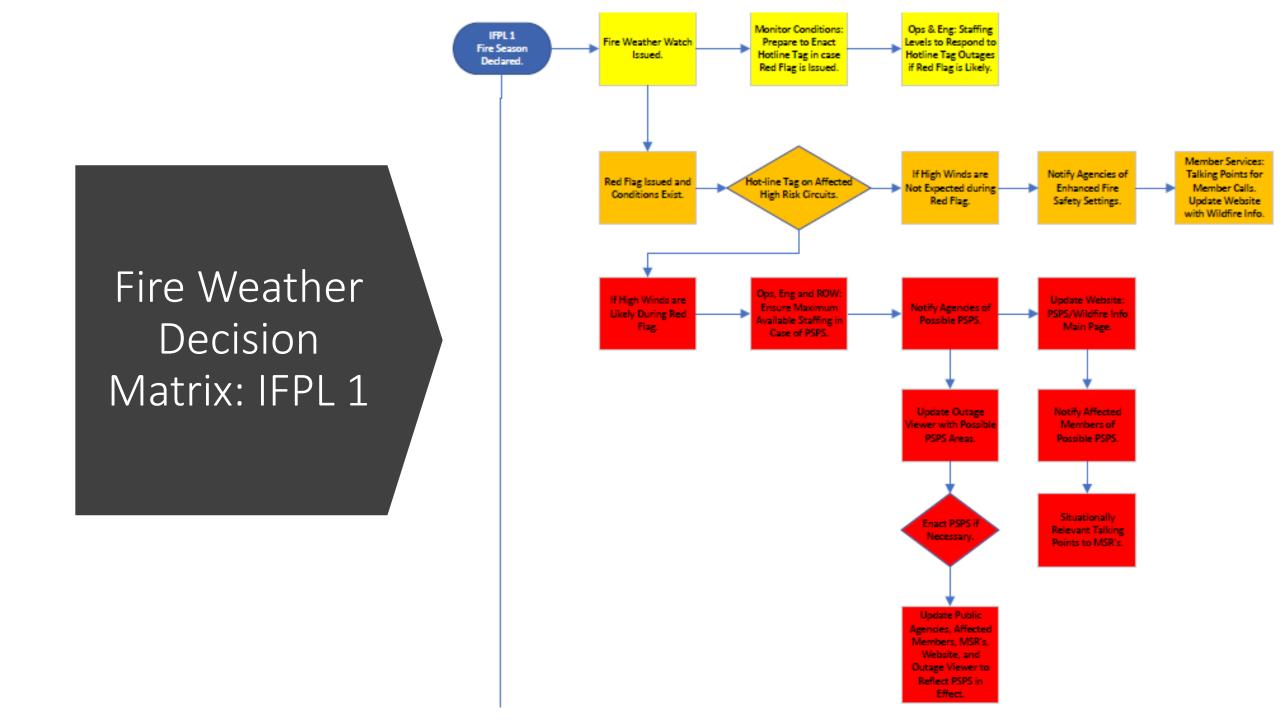
- John Boyd: USAF Fighter Pilot
 - Air Combat theorist: OODA Loop part of overarching theories.
- Observe Utilize all senses, to glean information about the situation.
- Orient Understand the meaning of what you are observing.
- Decide Weigh options available and pick one.
- Act Carry out the decision.



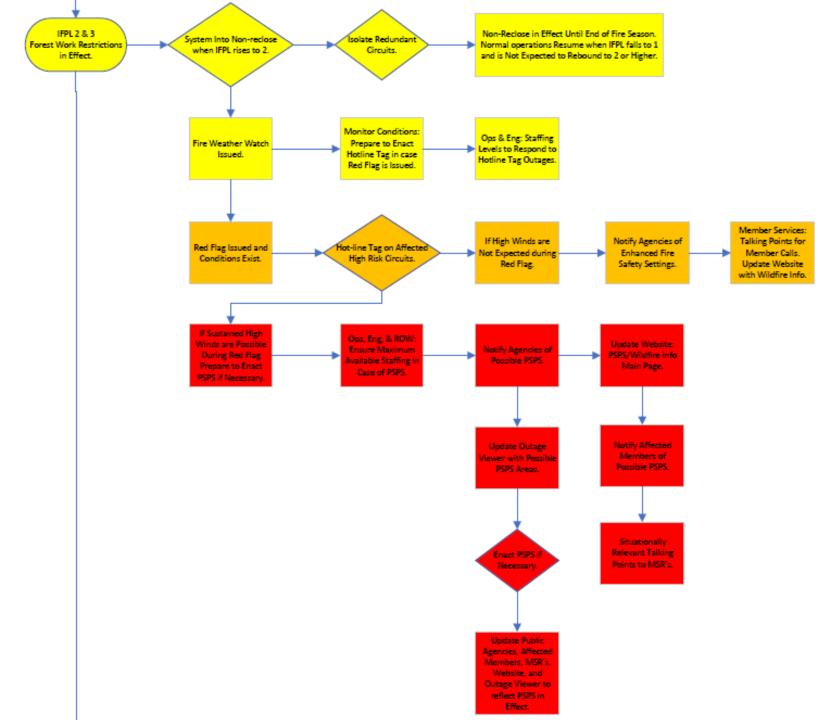


Fire Weather: What are the threats? What are your options?

- Fire Weather Elements: Regionally Specific
 - Critically low humidities
 - Elevated wind speeds
 - Elevated temperatures
 - Thunderstorms
- You know your system
 - What wind speeds damage vegetation?
 - What taps are prone to damage?
 - Where is critical infrastructure?
 - How fast can you switch to non-reclose, hotline tag, or implement a PSPS?



Fire Weather
Decision
Matrix: IFPL
2 & 3

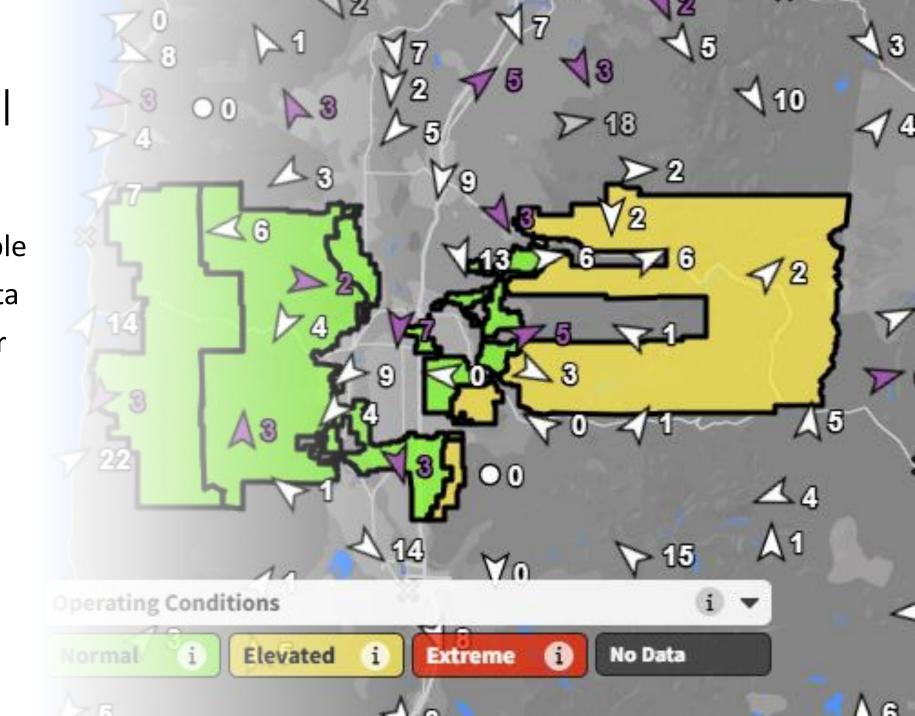


Fire Weather
Decision
Matrix: IFPL 4



Tempest One & Daily Situational Awareness Tool

- Worldwide Data Available
- Short range forecast data
- Radar, satellite, weather stations, etc.
- WWA's nationwide
- Filter most important indices
- DSAT available
 - Fire danger outlook
 - Tailored to your territory



The End!







Questions?

Comments?

Concerns?