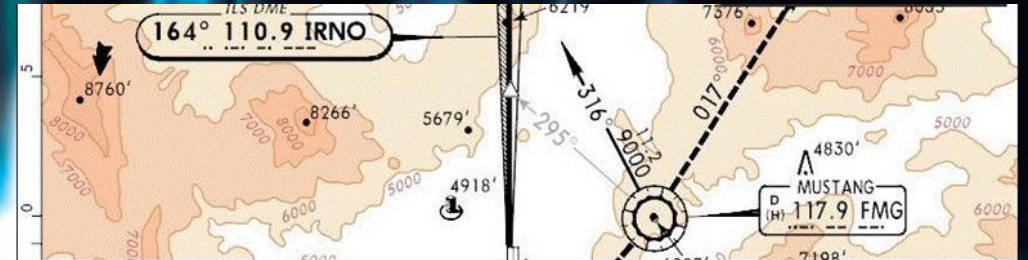


# SPEECH & ATC TRANSCRIPTION



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AUGUST 30, 2021

Honeywell

HONEYWELL CONFIDENTIAL

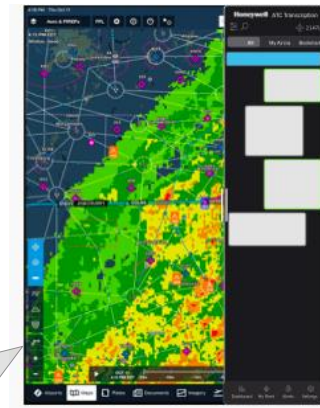
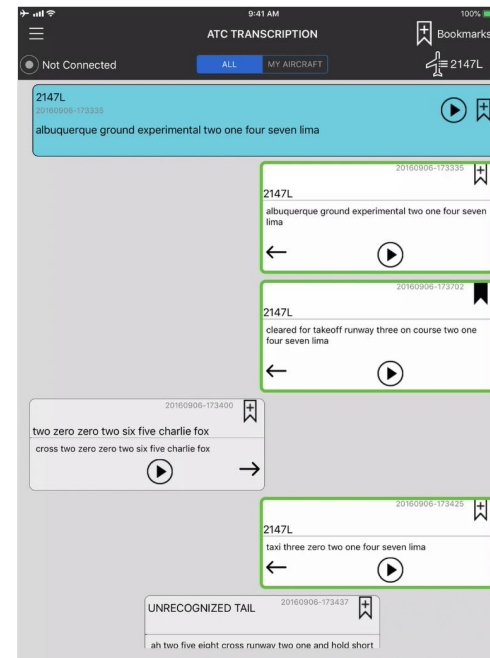
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# HONEYWELL SPEECH SOLUTIONS

Voice Enabled  
Command & Control



ATC Transcription



# SOLUTION CHARACTERISTICS

- ❖ High Accuracy levels across
  - Use Cases
  - Accents: Initial solution - North American accented models, followed by other Accents per OEM/Operator needs
  - Aircraft Noise Profiles
- ❖ Scalable platform (Hardware, Software, & Speech solution)
  - Support all market segments – GA, bizjets, and ATR.
  - Works across platforms (fixed wing and Helo).
  - Noise tolerant solution (accommodate Helo noise too).
  - Support more complex use cases including transcription and dictation.
  - Work on UAM use cases in progress (Air taxi and Cargo).
- ❖ Approach for accents. Field loadable model updates for additional accents
  - No qualification procedure for pilots.
- ❖ On the product plan of OEMs and working actively to deploy speech solution
  - R&D in cooperation with EU SESAR and Clean Sky programs
- ❖ Certification strategy in place and being pursued.

Differentiated

Scalable across  
Platforms

Very High Accuracy  
across 3  
dimensions

Noise tolerant  
Solution

Field Loadable  
Models

Does not require  
qualification  
procedure for pilots

# ATC TRANSCRIPTION

- In-Flight Real-time Automatic ATC Transcription for Pilots → Understand transcribed text & aid pilots.
- Enhanced user experience, faster interaction with A/C & lower workload



Advanced techniques for Voice activity detection & segmentation coupled with mature speech engine

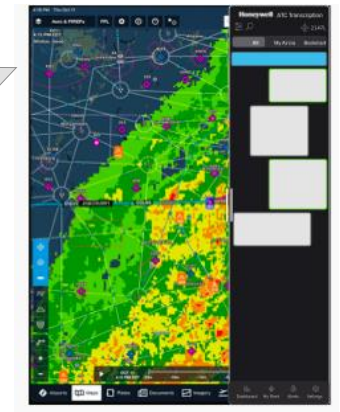
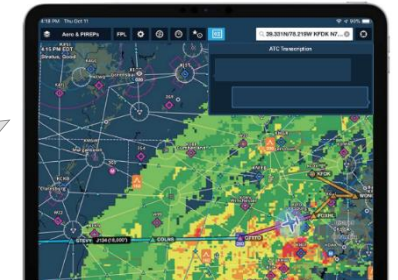
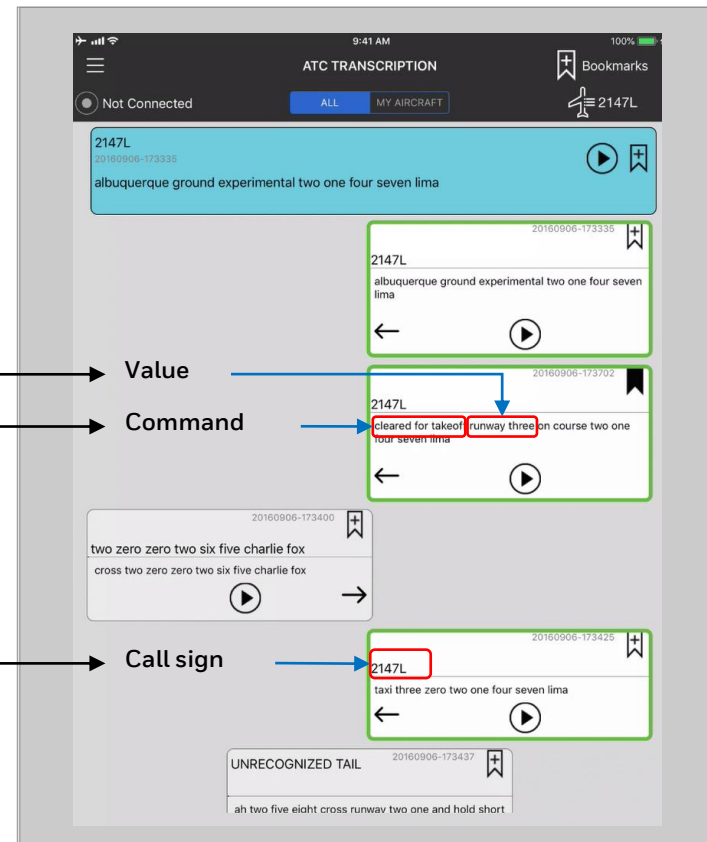


# ATC TRANSCRIPTION

- Listens to incoming radio continuously
- Transcribes all ATC communications
- Analyzes comm's for intended ownership
- Displays ATC communications on an EFB / iPad application
- Allows pilots to “bookmark” clearances of interest for later review
- Allows pilots to play back each transcribed clearance
- + Rich set of additional features

## Next steps

- Work on advanced use cases for command and control and transcription in progress
- NLP techniques to extract intent of ATC communications being implemented
- **Open to collaboration opportunities with external partners**



**QUESTIONS?**



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