

Working Group Meeting on Space-based Lidar Winds

March 21-23, 2017, Newport News Marriott at City Center

*740 Town Center Drive
Newport News, VA 23606*

Agenda

TUESDAY, March 21, 2015

<i>Title</i>	<i>Speaker</i>
8:00 Registration	
9:00 Welcome and Outline of Meeting	M. Hardesty and U. Singh
9:15 Welcome Remarks	D. Young
9:30 NOAA/NESDIS Opening Remarks	J. Pereira
Agency Reports	
9:40 NASA HQ Update	G. Komar
10:10 Update Airborne Convective Processes Experiment (CPEX)	R. Kakar
10:30 NOAA's Quantitative Observing System Assessment Program	R. Atlas
10:50 Discussion	
11:10 Break	
11:30 Current Status of the ESA Aeolus Wind Mission	M. Hardesty, A. Straume, A. Elfving
12:00 JAXA research and development plan and status for space borne Lidars	T. Kimura
12:30 Lunch	
DAWN	
14:00 Coherent Wind Lidar Activities and Vision at NASA Langley Res. Center	U. Singh
14:45 DAWN contributions to investigating Arctic atmospheric dynamics and numerical model validation	S. Greco
15:15 Plans for using DAWN in multi-scale interaction study in the tropics (CPEX 2017)	D. Emmitt
15:45 Update of DAWN Improvements	S. Henderson
16:05 Break	
ATHENA-OAWL	
16:15 ATHENA-OAWL: Measuring Winds from the International Space Station	M. Hardesty
16:45 General Discussions	
17:15 Adjourn	

WEDNESDAY, MARCH 22, 2017

- 8:30 Registration
8:45 First Day Review and Day 2 Preview M. Hardesty and U. Singh

Lidar Activities in Japan

- 8:50 Recent research and development for 2-micron coherent Doppler Wind Lidar S. Ishii
9:20 Observing system simulation experiment (OSSE) for future space-based Doppler wind lidar in Japan K. Okamoto

OAWL

- 9:40 ATHENA-OAWL and the Green OAWL (GrOAWL) Airborne Demonstrator S. Tucker
10:00 Results from the ATHENA-OAWL Venture Tech Flights S. Baider
10:20 A Path to Full Atmospheric Profiling using Nested OAWLs S. Tucker
10:40 **Break**

Doppler Lidar Technology

- 11:00 Spaceflight 1.94 micron Tm:Fiber Laser Transmitter for 2-micron Wind and CO₂ lidar F. Hovis
11:20 Compact 2-micron Seed Laser for Coherent and Direct Detection Lidar Applications (Wind, CO₂ and H₂O) S. Henderson
11:40 General Discussions
11:55 **Lunch**

Airborne Coherent Doppler Wind Lidar

- 13:25 NOAA's airborne DWL on Hurricane research aircraft: 2015 -2017 G. Emmitt
13:55 Atmospheric energy harvesting for autonomous in-flight path planning of a UAV instrumented with Doppler Wind Lidar S. Wood

Aerosol Lidar

- 14:15 A 10-year Global Aerosol Climatology Derived from CALIPSO J. Tackett

Atmospheric Motion Vectors

- 14:45 Height assignment of atmospheric motion vectors from stereo and IR techniques D. Wu
15:15 Synergizing lidar measurements with AMV measurements D. Wu and M. Kelly
15:45 **Break**

Novel Wind Lidar Approaches

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| 16:00 | Mars Atmospheric Lidar | F. Amzajerian |
| 16:20 | A novel Three-beam aerosol backscatter correlation lidar for wind and wake vortex applications | N. Prasad |
| 16:40 | General Discussions | |
| 17:00 | Adjourn | |
| 17:30 | Break | |
| 18:30 | Wind Lidar Group Dinner at Nawab Indian Cuisine, Newport News, VA | |

THURSDAY, MARCH 23, 2017

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| 9:00 | Second Day Review and Day 3 Preview | M. Hardesty and
U. Singh |
| 9:20 | General Discussions | |
| 10:05 | Review of Action Items and Date/Place for Next Meeting | M. Hardesty and
U. Singh |
| 10:35 | Adjourn | |