

DPW-8 & AePW-4

Buffet Working Group



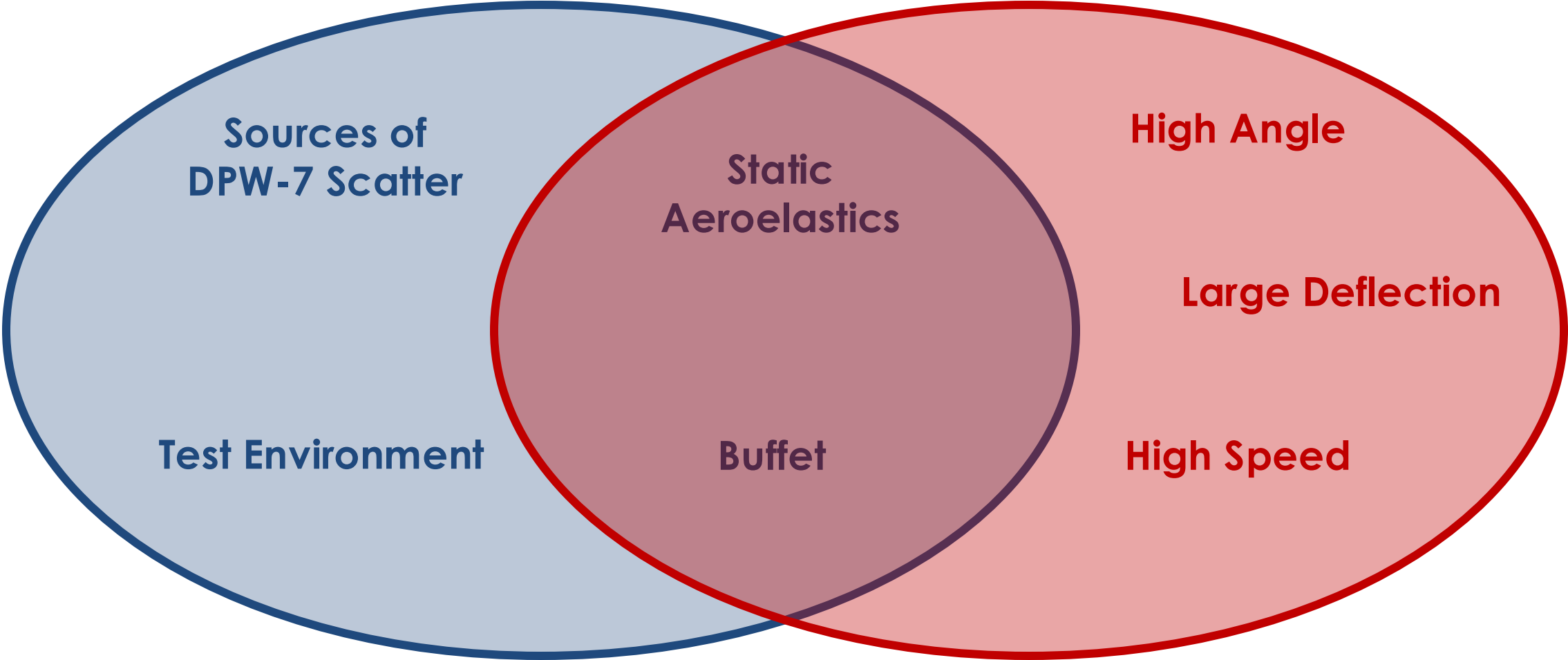
August 20, 2024

aiaabuffet@gmail.com



DPW

AePW



Buffet Working Group website

<https://aiaa-dpw.larc.nasa.gov/WorkingGroups/Group3/group3.html>

- Test-case centric information added to the Buffet Working Group website

Postprocessing website

<https://aiaa-dpw.larc.nasa.gov/postprocessing.html>

- Includes ONERA OAT15A experimental results
- Added v3 of data files (includes Tstatic as an auxiliary data value)
- Residual data form in preparation
- Unsteady F&M and surface cut data file in preparation (will include $C_{P,rms}$ and spectral content)
- Conversations for alternate data formats are in process using lessons learned from previous workshops

Large File Upload

<https://nasagov.app.box.com/f/fd164563283b4e85857d1a0975b0b363>

- Please upload as a zip file with your name in the file name and alert the buffet email address

AVIATION In-Person Meeting

- Included updates from all seven Working Groups
- Slides have been uploaded to the website
https://aiaa-dpw.larc.nasa.gov/ref/aviation_2024.pdf
- Significant conversation regarding Scatter Group scope of work

- **Static temperature stated incorrectly**
 - Static temperature should be 271 Kelvin (487.8 Rankine)
 - Ensure that all simulations are executed at these conditions
 - Apologies are extended from the Organizing Committee to you
- **Target submission of all data by October 31, 2024 (tentative)**

- **Leaders have been identified for the Scatter Group**
 - Deep experience with High-Fidelity CFD Verification Workshop
 - Marshall Galbraith, MIT
 - Kevin Holst, University of Tennessee Knoxville and CREATE-AV
- **Initial scope**
 - RANS centric
 - Establish snapshot of best practices within field (via ONERA OAT15A results)
 - Participants are encouraged to submit data using his/her best practices
 - Some flavor of SA is strongly desired
- **Lessons learned feedback**
 - The Scatter Group may request simulations of the ONERA OAT15A in the future
 - Recommended practices/settings may be requested

- **Updates from subgroup leaders**

- URANS: Fulvio Sartor, ONERA Centre de Meudon fulvio.sartor@onera.fr
- Hybrid RANS/LES: Jeff Housman, NASA Ames jeffrey.a.housman@nasa.gov
- WMLES & Beyond: Johan Jansson, KTH jjan@kth.se

- **Email the Subgroup leader If you are interested in participating**

- **Individuals are welcome to attend these meetings and not submit data**

Test Case 2 Update

- Unsteady CFD with committee-supplied static wing geometry
- Comparison to recently-collected JAXA data
- Grids are in work by Helden Aerospace, Cadence, and NASA Ames
- More information should be available next month

- **May, 2024**
 - ONERA OAT15A geometry release ✓
- **July, 2024**
 - ONERA OAT15A grids released ✓
 - AVIATION in-person meeting
- **August, 2024**
 - First look of Test Case 2 grids
- **November 30, 2024**
 - ONERA OAT15A data submission deadline (may be reconsidered)
- **January, 2025**
 - SciTech in-person meeting
 - Mini Workshop 1 (hybrid)?
- **Winter, 2025**
 - Mini Workshop 1 if not at SciTech
 - First look of Test Case 3 grids
- **Fall, 2025**
 - Mini Workshop 2, virtual
- **March, 2026**
 - Delivery of final data set
- **June, 2026**
 - Workshop in San Diego, CA
- **Winter, 2026 (very tentative)**
 - NASA Ames 11-ft test
- **January, 2027**
 - SciTech Special Sessions in Orlando, FL

- **Next Buffet Working Group meeting is Tuesday, September 17**
 - Individuals or teams are welcome to present preliminary analysis
 - Please contact aiaabuffet@gmail.com if you are interested to present grids or solutions
 - Virtual
- **Upcoming JAXA buffet workshop**
 - Next Friday, August 30th, 12:30-18:00 JST
 - Contact Andrea Sansica for more information (sansica.andrea@jaxa.jp)
 - Hybrid



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