September 5th – AM

Visit to Poker; Discussion on UAV’s with Ray Wilson; Tour of the range with Bob Valdez

September 5th – PM

3:00pm start; Went through the Vhub notes from 3rd and 4th

**SEPT 3RD NOTES**

Puff operational

Option 1a for Puff [1ST]

Can we get Option 1a to run; needs new Puff and GEFS data in AK; then set up for two AK and 1 for Washington VAAC and one for Darwin VAAC?

AK work: Can we get WRF for doing a deterministic run; then GEFS data for 80 ensemble runs; then compare deterministic WRF to GEFS probabilities; we run for 24 hrs simulation with the ESP inputs and 4e6 particles (also 4e7 particles too for WRF); Don will make WRF available as GRIB and we need to convert to Puff netcdf format

Set up IRODS for getting NWP data?

Make the code system that it is a generic API to run the VATD and as a result it just calls Puff but can easily run off more than one model; can it be written in XML/Python

Option 1b for Puff [2ND]

Build ESP database for the 4 volcanoes” MIB/PWW/SP/JD – Fri 6th at 08:30 am

Figure out updated ESP

Option 1c for Puff [3RD]

Do new Puff with probabilistic ESP and one high res NWP

Bent-Puff

 ATHAM v Bent-Puff case

 Example event of Pavlof 2013; Kluichevskoi 1994

 Can we see significance of aggregation/water vapor on getting initial plume?

Fieldwork

 Work on Stromboli data; Solene with Martin H; JD and PWW

**SEPT 4TH NOTES**

We would want to see how to write a Puff input NETCDF file from Bent-Puff output directly rather than command line and also make a Puff NETCDF file directly in 3D from the ATHAM model output

DA code would be built outside Puff; take a Puff output file, run DA, build an input file and re-run Puff.

2-3 page document on DA – EBP to lead

Overall project goal?

Papers

 ESP Papers so far with Operations Capability

Solene/MIB/Darwin VAAC paper as Research work; then white paper work from a few more VAAC’s

 NWP papers so far with Operations Capability (Romana paper GRL as the ops paper)

 Full project one

 VATD in MP; Scripts in MPI

 Workflow and development

 Ops ESP + Ops Ensemble NWP with inverse together 🡺 final result

Need to write a lot more on the internal physics; why we chose certain parameters; why one model rather than another