

KORUS-AQ Science Team Tag-up 11 January 2016



<u>Agenda</u>

Open Issues: Registration, Travel, Schedule changes, etc.

New items

Example flight plans for discussion with ATC

Registration (1)

Registrations on the ESPO website need to be completed

Location	Completed	Missing	Incomplete
Palmdale	116	35	30
Osan	181	37	42
Palmdale (SARP)	110	36	31

*These numbers only account for team members that have been identified and emailed

Specific Travel Dates

With release of the detailed calendar, it is important that teams enter travel dates that are consistent with the manpower needs described in their proposals.

Registration (2)

Foreign National participation includes the following:

Country				
Austria (permanent resident)	China (3, 1 US permanent resident)	Italy (US permanent resident)	Spain	
Bangladesh	France	Russia (US permanent resident)	Sweden (1 US permanent resident)	
Canada	Germany (1 US permanent resident)	Slovakia		
Chile	Israel (US permanent resident)	South Korea (1 US permanent resident)		

According to Osan Air Base, if the citizens are from Bangladesh, China, Israel, or Russia; their approval process will have to go all the way up to US Forces Korea Provost Marshall in Seoul with no guarantees of it being approved. They will also require escort at all times while on the base. These issues do not necessarily apply to Palmdale access, which in principle should be easier.

Registration Update (3)

Family and Friends visiting Korea

- This question was raised during AGU.
- Rules at Osan allow escorted access on base during business hours only, family and guests cannot stay overnight.
- Visiting guests or relatives that are not US citizens would have to go through the normal lengthy approval process, so information should be sent as soon as possible.

Schedule

 The online calendar has been updated to reflect the schedule presented at AGU. The website should now be considered the authoritative resource. All future changes will be made there.

https://espo.nasa.gov/home/korus-aq/calendar

Travel

- Some of you have already begun to inform Diane Zeimet about your travel plans. This is fine to do, but we will not be making any travel arrangements until mid-February.
- Civil Servant travel WBS accounts have also not been enabled yet. We will also take care of this in the next few weeks.

Open Issues

Waiver for travel in excess of 30 continuous days

Feedback from the NASA LaRC travel office continues to be positive, but a final decision from the travel office at NASA HQ is still pending. We have made it clear that this decision needs to include all NASA centers and SSAI reimbursed travelers.

<u>Transit cargo space on the DC-8 for experimenters</u> No new information at this time.

Hanseo King Air Permission to Base at Osan

- Jhony has inquired about this and is awaiting information. We will communicate anything new as soon as we find out rather than wait for the next webex.
- Osan has asked for a copy of the paperwork that was submitted to the Pentagon for follow-up.

KORUS-OC Update

- Sampling in territorial waters has emerged as an important issue to resolve. This can hopefully be addressed with some additional language in the MOU.
- KORUS-OC cruise lines still need to be specifically planned.
- How long will the ship stay in each major sampling area?
- Shipping will be done separately, but stilled coordinated with help from ESPO.

Other items or issues?

 Saewung Kim will mediate a telecon between NASA (Glenn Wolfe) and Hanseo personnel regarding formaldehyde measurements (stay on the line at the end of this call).

Current Plans and Needs for Pandora

- The Pandora network will be upgraded and expanded on the following schedule:
 - 15 March Shipping of instruments (will need help from Jeong-Hoo to clear customs).

5-15 April – Install and upgrade instruments (seeking help from Jhoon Kim)

- Units will be located at the following locations: Anmyeon, Baengnyeong, Busan, GIST, Taehwa (transferred from HUFS), and Yonsei U.
- An additional unit will be added to Taehwa (and another TBD site to enable profiling)
- EPA will also bring two units to the Olympic Park site
- Question to the steering group. Do we want to move one of the units to Gosan where we hope to profile with the DC-8?

Process for Guest Passengers on the DC-8

- It is expected that we will receive requests for guests to fly on the DC-8. This could include the press, dignitaries, or science team members in non-flight roles, etc.
- It will be helpful to define the procedure, requirements, and time needed to process such requests.

KORUS-AQ Logo Candidates:

Option 1

KORUS-A@

Option 2





KORUS-AQ: Example Flight Patterns



- The following slides provide graphic representations of research flights and the flight patterns needed to accomplish the scientific goals of KORUS-AQ
- Specific flight plans have also been provided separately for comment.
- DC-8 flight tracks are roughly 8 hours in duration
- B200 flight tracks are roughly 4 hours in duration and could be executed twice per day to overlap with DC-8 operations

Routine low altitude sampling and profiling near Seoul

- We need to gather routine statistics on air quality in the vicinity of Seoul
- Data needs to be collected near the surface as well as aloft
- We would like to perform the maneuver shown below as often as possible.
- After takeoff from Osan, the maneuver would include low altitude flight over Olympic Park, a missed approach on Seoul AB, and a spiral ascent over Taehwa Mt. (this would be repeated later in the flight as well and is included in the example flight plans)



Example Flight #1: Peninsula Inflow Flight



B200 ground track (flight at constant altitude, 28 kft)



DC-8 Peninsula Inflow Flight (3D Flight Track)



DC-8 Peninsula Inflow Flight (3D Flight Track with shading)



Example Flight #2: Peninsula Outflow Flight



DC-8 ground track (airports for missed approaches are marked)

B200 ground track (flight at constant altitude, 28 kft)



DC-8 Peninsula Outflow Flight (3D Flight Track)



DC-8 Peninsula Outflow Flight (3D Flight Track with shading)



Example Flight #3: Point Source and Outflow (DC-8) Seoul Raster (B200)

DC-8 ground track (power plants on the west coast are marked). This flight would be reserved for weekends when airspace is less restricted. B200 ground track (flight at constant altitude, 28 kft). Orientation of the pattern, e.g., N-S, E-W, NW-SE is flexible.



DC-8 Point Source and Seoul Outflow Flight (3D Flight Track)

DC-8 Point Source and Seoul Outflow Flight (3D Flight Track with shading)

