

SAFARI 2000 ER-2 EXPERIMENTERS BULLETIN

9 MAY 2000

<http://safari.gecp.virginia.edu/>

MISSION DESCRIPTION AND OBJECTIVE:

The South African Fire / Atmosphere Research Science Initiative (SAFARI) 2000 is an interdisciplinary science activity designed to increase our understanding of the southern African ecological and climate system as a whole, and its relationship to hemispheric and global climate. Measurements will be made using ground-based, airborne, and satellite observations. The data will be used to determine climatic, hydrological and ecosystem consequences of bio-geo-chemical processes.

AREA OF OPERATIONS:

The ER-2 aircraft will operate from Pietersburg South Africa at the Gateway International Airport. The SAFARI study region includes the following countries: Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe.

FLIGHT REQUESTS:

On file with NASA HQ. Contact Mission Manager for details.

INSTRUMENT PAYLOAD

AIR-MISR: Airborne Multi-angle Image Spectrometer

SSFR: Solar Spectral Flux Radiometer

CLS: Cloud LIDAR System

MAS: MODIS Airborne Simulator

MOPITT-A: Measurement of Pollution in the Troposphere Airborne Simulator

S-HIS: Scanning High Resolution Interferometer Sounder

RC-10: Camera

LAS: Leonardo Airborne Simulator

DATA SUPPORT SYSTEM

ER-2 Navigation Recorder will download each flight daily for view.

TRAVEL INFORMATION

1.Passports and Visas

A visa is required if you are traveling with an official government passport (red passport). No visa is required if traveling with a regular passport (blue).

2.Hotel

A block of 30 rooms has been reserved for the ER-2 crew and investigators at the Holiday Inn Garden Court, Pietersburg from August 8 to September 28, 2000. The rate is within US government per diem, US\$31, for a single room and excludes all meals, extras, and a Tourism Levy of 1%. Please note that the rate is net and non-commissionable. To get the government rate, individuals need to mention "Safari 2000" and guarantee your reservation with a credit card. The block will be held until July 7 and reservations should be made before then. There are also lots of "guest houses" in Pietersburg and you may want to investigate them once you get there. The Holiday Inn contact is Cathy Moulder.

Phone: 011-27-15-291-2030,
Fax: 011-27-15-295-2340,
E-mail: cathym@southern.sun.com

3.Rental Cars

Three companies operate from Gateway airport at Pietersburg: Avis, Budget and Imperial. Imperial will give us a very good discount if you mention SAFARI 2000. The contact is Heather Taylor.

E-mail: htaylor@imperial.ih.co.za.
Tel: +27-11-453-0005
Fax: +27-11-454-2929

She will need: Name of renter: Name of co-driver: Date of rental: Time of rental: Class or Group of vehicle. Credit card details can be given immediately or provided on arrival. We recommend careful investigation of insurance requirements within your company or organization. Car jacking is a risk in South Africa and you may want to have "full coverage". Another tip, if you have even a minor accident, you need to report it at a police station and get an accident report. The rental car company needs an accident report to process the insurance claim.

4. Airline Travel

The most direct flight is from Atlanta to Johannesburg via South African Airlines (code-share with Delta). I would recommend flying from Johannesburg to Pietersburg rather than driving. The road is good but it takes 3.5 hours after a very long flight.

DEPLOYMENT INFORMATION

1. Office Space

Five rooms on the hangar floor are being painted and cleaned for our use. We will have two rooms with double doors for the investigators, one for the ER-2 crew and mission managers, one for pilot suit-up and one for the CV-580 group. The electricity, 220V/50Hz, is being augmented and we will bring transformers for everyone. An office building, located about a five minute walk from the hangar, will be used for operations.

2. Phones/Network

We intend to buy six cell phones for the use of mission manager, pilot, crew chief, logistics specialist, mission scientist, and one for another science person to be designated. If the science groups want more phones, they will be responsible for procuring them. Because of the extremely high cost for a dedicated internet connection, we will not be able to provide that service. We will provide dial-up internet accounts with 56k baud local dial-up connections. We will set up an internal LAN in the hangar which will allow investigators to ftp and telnet within the LAN. Five phone lines will be distributed between four rooms in the hangar and used primarily for dial-up networking. Users will have to make direct connections to the phone lines to use the dial-up internet service.

3. Medical

Recommended immunizations for South Africa IAW U.S. State Department Publication:

Tetanus (within last 10 years)

Polio (one dose since adult)

Hepatitis A

Typhoid

TB skin test (within last 6 months and 3 months upon return)

Malaria prophylaxis

There are two hospitals in Pietersburg but the Pietersburg Medi-Clinic, a private hospital located on Vorster and Burger, is better. In addition to the conventional surgical wards, they have an 8-bed intensive care unit, six operating theatres, and a casualty unit. All units are open 24 hours a day. More information is available at: www.mediclinic.co.za

INFORMATION REQUIRED FROM YOUR GROUP

1. Gas Requirements

We will establish an account with Afrox, a gas company in Pietersburg, however Afrox wants to know ahead how much we will need each week and the purity we require. Please e-mail your weekly gas requirements with the desired purity to Betty Symonds before May 30.

While at NASA Dryden gas can be provided. All requirements are addressed on the Airborne Science Investigator questionnaire.

2.Badging (South Africa)

Gateway Airport will provide badges, which will allow access to the flight line. Gateway needs two passport size pictures, full name and passport number. Please send pictures and a copy of your passport to Betty Symonds before June 30 and she will forward the pictures and information to Gateway. Badges can be made for alternates when they arrive in Pietersburg.

NASA Ames Research Center
Mail Stop 245-5
Moffett Field, CA 94035

3.Badging (NASA Dryden)

NASA Dryden requires each person to have proper badges for access to the lab spaces. Each person should have been listed on the experimenter's questionnaires. Photos are not necessary.

4.Personnel Rotation

Please e-mail your group's tentative rotation deployment schedule to Betty Symonds before June 30.

SCHEDULE

- **IMPORT / EXPORT REGULATIONS REQUIRE THAT ALL EQUIPMENT ENTERING / EXITING SOUTH AFRICA SHALL BE TRANSPORTED VIA THE SAME MEANS. THEREFORE IF YOU HAVE EQUIPMENT ON THE TRANSPORTS INBOUND IT WILL GO ON THE SAME TRANSPORT OUTBOUND.***

ER-2 Schedule:

Ferry to Pietersburg

5 AUG NASA DFRC to Patrick AFB, FL

8 AUG Patrick to Recife Brazil

10 AUG Recife to Pietersburg South Africa

12 AUG Open House Display

13 AUG – 24 SEP Science Flights (approx. 14)

Ferry to NASA Dryden

26 SEP Pietersburg to Recife

28 SEP Recife to Patrick AFB

30 SEP Patrick to NASA Dryden

C-141 AIRLIFT #1 Schedule:

Ferry to Recife from NASA Dryden

31 JUL – 3 AUG Palletize Equipment

***ALL SCIENTISTS MUST HAVE EQUIPMENT PALLETIZED
FOR LOADING NLT 3 AUG***

4 AUG Aircraft pallet loading

5 AUG NASA Dryden to Recife Brazil

6 AUG Arrive Recife Brazil

7 AUG Meet customs in Recife (0800 L)

8 AUG Depart Recife

Ferry to NASA Dryden to from Recife Brazil

25 SEP Arrive Recife (with LOX cart)

28 SEP Aircraft pallet loading (all Equip)

29 SEP Depart Recife to NASA Dryden

1 OCT Arrive NASA Dryden

2 OCT Depart NASA Dryden

C-141 AIRLIFT #2 schedule:

Ferry to Pietersburg South Africa from NASA Dryden

31 JUL – 4 AUG Palletize Equipment

***ALL SCIENTISTS MUST HAVE EQUIPMENT PALLETIZED
FOR LOADING NLT 4 AUG***

4 AUG Aircraft pallet loading (all Equipement)

5 AUG Depart NASA Dryden to Pietersburg South Africa

9 AUG Arrive Pietersburg South Africa

9 AUG Meet customs at 1200L

10 AUG Unload

11 AUG Depart Pietersburg

Ferry to NASA Dryden from Pietersburg South Africa

25 SEP Aircraft arrive Pietersburg

27 SEP Aircraft pallet loading (all equipment)

27 SEP Depart Pietersburg to NASA Dryden

29 SEP Arrive NASA Dryden

30 SEP Unload

Other Dates:

May 15 Equipment list to DFRC (gilbert.cagonot@dfrc.nasa.gov)

May 30 Gas requirements to Symonds(bsymonds@mail.arc.nasa.gov)

June 30 Badging information and personnel rotation to Symonds

July 24 Investigators and equipment ready at DFRC for upload

July 31 First scheduled check flight for instruments

(Please contact Bob Jones or Walter Klein with your arrival date for up load)

POINTS OF CONTACT:

Walter Klein, NASA Dryden, 661-276-3243, walter.klein@dfrc.nasa.gov

Bob Jones, NASA Dryden, 661-276-2169, bob.jones@dfrc.nasa.gov

Betty Symonds, NASA Ames, 650-604-3495, bsymonds@mail.arc.nasa.gov