NERC Centres for Atmospheric Science
NATURAL ENVIRONMENT RESEARCH COUNCIL

FAAM *Facility for Airborne Atmospheric Measurements*

Met Office

FACILITY FOR AIRBORNE ATMOSPHERIC MEASUREMENTS

Stephen Devereau
Technical Manager

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Met Office

FAAM Overview

Partnership between NERC and Met Office

One of the NERC Centres for Atmospheric Science

Aircraft owned and converted by BAE Systems

Operated by Directflight

Maintained by Avalon Aero

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History

-Aircraft contract placed Dec 01

-Conversion of aircraft: based upon the prototype BAe-146, originally registered as G-SSSH which first flew in September 1981

Conversion at BAE Systems, Woodford, UK

- Conversion was a major project, taking 2 years

History

- Aircraft contract placed Dec 01
- Aircraft Certificate of Airworthiness May 04
- Directflight Air Operator's Certificate Jul 04
- Aircraft Acceptance for Role Jan 05

Home-based and Detached Campaigns

- Azores
- Northern Italy
- Antigua

Individual and Collaborative Programmes

- Europe and USA

Aircraft Characteristics

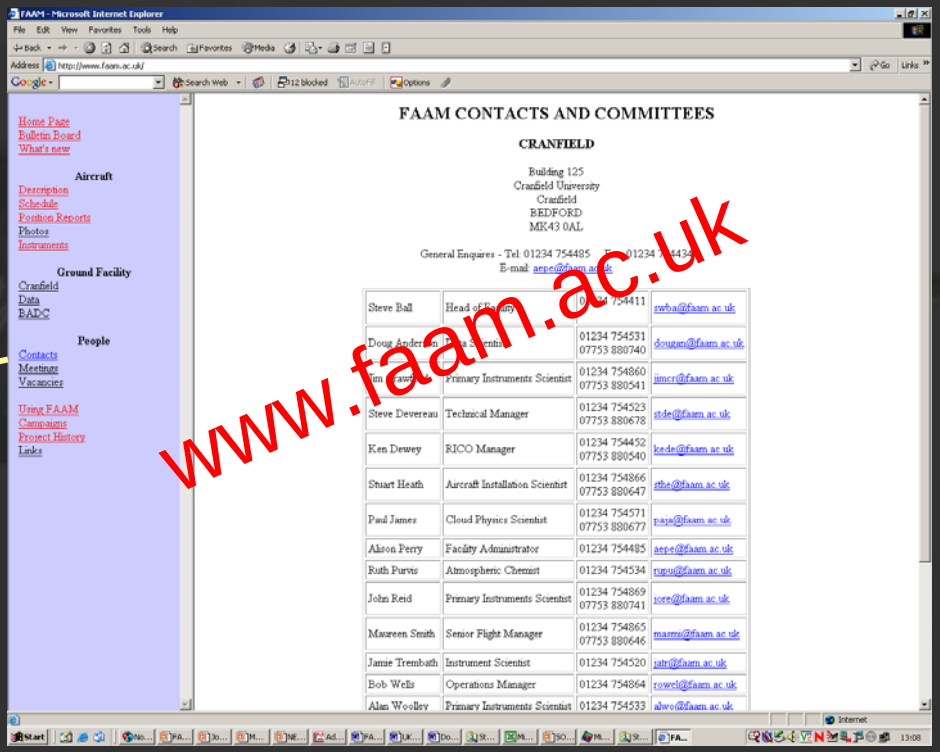
BAe 146-301

Crew	2 Pilots, 1 Cabin Crew
Scientists	18 Max
Length	31m
Wingspan	26m
Height	8.4m
Engines	4 Honeywell LF507-1H Turbofans
Max Altitude	35000ft
Min Altitude	50ft
Range	3700km
Cruise Altitude	27000ft
Typical Sortie Duration	5hr
Science Speed	200kts
Payload	4000kg Instrumentation

Personalities

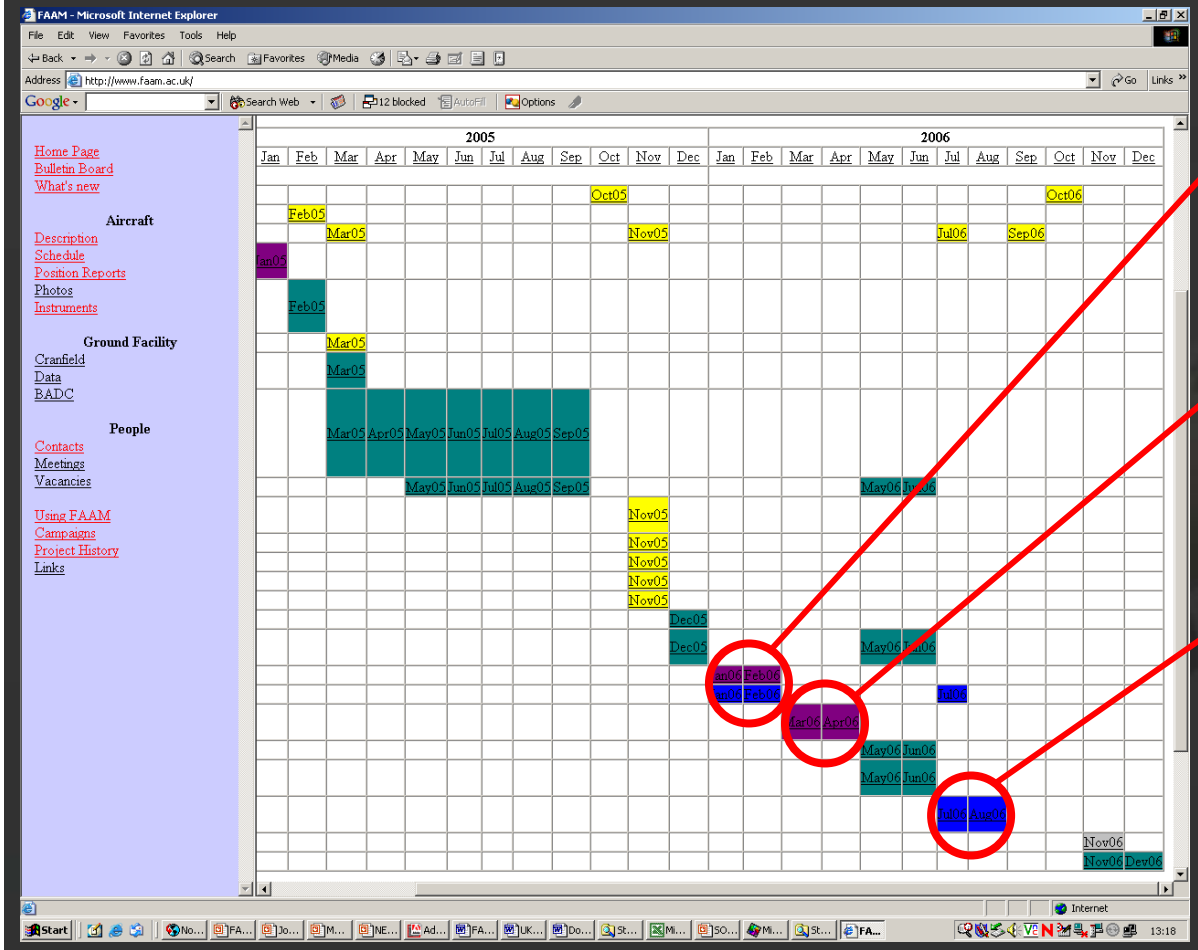
13 Staff

Contacts



Information

Schedule



Africa

USA

Africa

Configuration change as required to suppor users' needs

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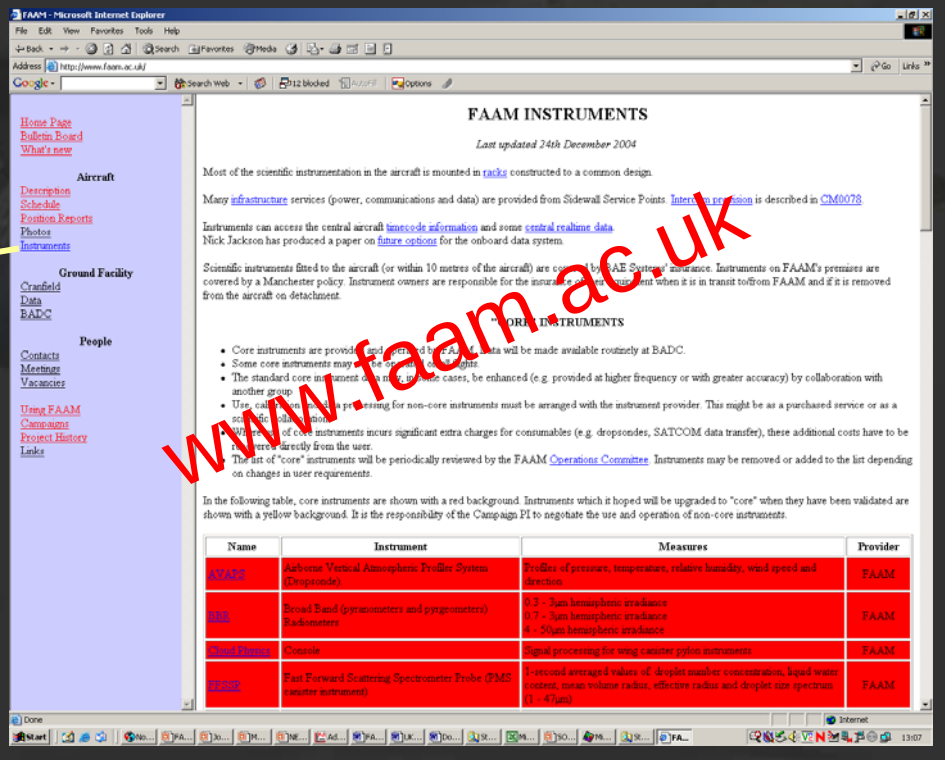
Instruments

Core – provided, maintained and operated by FAAM

Non-Core – by arrangement between campaign PIs and FAAM Technical Manager

Instruments



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Engineering Events

- Regular: Annual October ‘C’ Check
- Instrument Integration/Installation
- Role Changes:
    - Configuration around standard racking
    - Potentially large variety of fits
    - Changes conducted on behalf of science community
    - Adoption of a more pragmatic approach to configuration
        - One configuration made to cover a variety of campaigns
        - Simple, pre-Certified changes to single racks
        - Programme tends to be divided into similar campaign types

Engineering

Some works are directly required by FAAM:

- Role Changes
- Changes to Core instrumentation

Other works are on behalf of Facility users:

- Met Office
- Universities, via NERC funding for projects
- European funded research activities – EUFAR

Examples:

- Spring 08 Role Change by FAAM on behalf of the science community for OP3 project in Borneo
- LIDAR installation by Cambridge University
- IIR camera installation by Met Office

Reminder: FAAM website

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