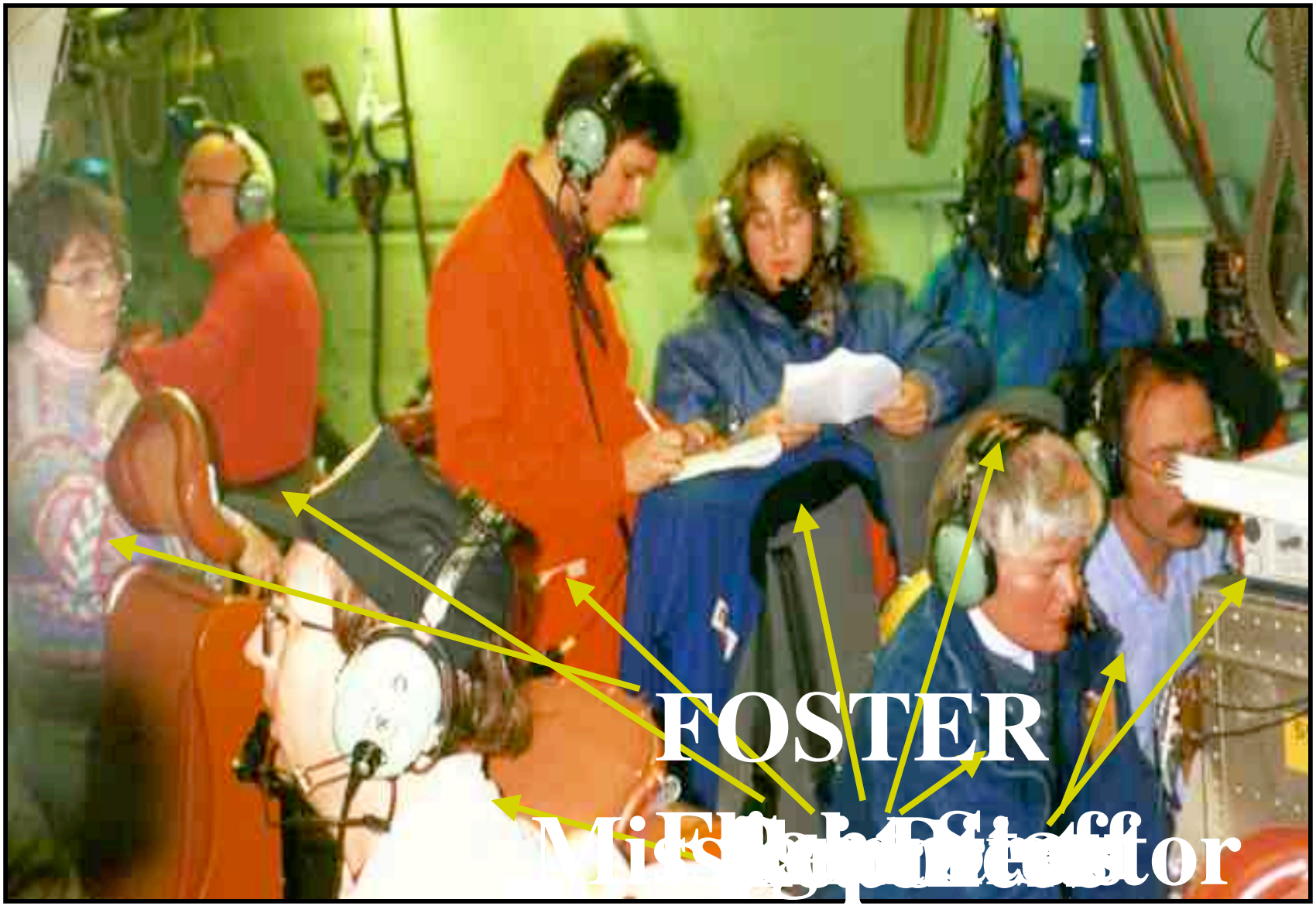
E/PO component of SOFIA research flights

- **AAA = Airborne Astronomy Ambassadors program**
  - Educator participation in research flights is Level 1 requirement of the mission
  - Keystone of SOFIA E/PO, based on KAO FOSTER program
  - Original USRA proposal and PM09 planning doc anticipated 200 educators and other E/PO guests (e.g. journalists) flying per year in full operations (scaled to 160 flights / year)

- **Over-arching Objectives:**

  (NB: 2 of NASA's 7 strategic goals focus on education)
  - Support NASA's goals to inspire the next generation of explorers
  - Enhance science and technology education in communities across the US
  - Establish long-term relationships between those communities, scientific researchers, and NASA
  - Contribute to general public understanding of the values and methods of scientific research


FOSTER
Mission Support Staff

E/PO and SOFIA research flights, cont'

- AAA Implementation vision:
  - 3-4 educators per team (for example, 2 teachers + science museum staffer + avid amateur astronomer from one town)
  - National application process analogous to telescope time application, with panel convened to read proposals
  - Main criterion for judging proposals: plans for changing science education and community outreach "back home" after flight
  - Secondary criteria: geographic and demographic distributions
  - Each educator team to be matched with SOFIA observer team and trained to understand observers' science goals
  - Educator team brought to Ames a few days prior to flight series to prep with observer team
  - Educators' long-term work in home communities after flights to be supported by SOFIA E/PO office
  - NOTE: instrument teams in general have their own ongoing E/PO programs that we will continue to support

E/PO and SOFIA research flights, cont'

- Connection with SOFIA General Investigator programs:
  - Notice in telescope time applicants that successful proposals will have E/PO components supported
  - Successful observing proposals will have E/PO program definition process in parallel with AOR definition process:
    - Check-box choice:
      - matched by E/PO with educator team as partners in flight, or
      - matched by E/PO with educators in local area (non-flight), or
      - design own E/PO program to complement science program, with help from SOFIA E/PO office
      - no E/PO participation (?)
    - PI designates member of research team as E/PO contact
  - In the flight partnership option, E/PO office matches 1 educator team with 1 observer team and facilitates pre-flight contact, communication, training
  - Observer protections and considerations for flight partnerships:
    - E/PO staff member always accompanies educator team
    - PI decides level of E/PO participation once in flight

E/PO and SOFIA research flights, cont'

- Ramp-up plan:
  - Educators nationwide already being alerted about SOFIA AAA program at NSTA and other meetings and via publications
  - E-mail news letter to signed-on educators every 6 months
  - First call for proposals from educators approx. ORR - 3 mos
  - Educators already partnered with instrument teams may fly after science verification flights, around or soon after ORR
  - First educator proposal review approx. ORR + 3 mos
  - First AAA "guest educators" to fly approx. ORR + 6 to 9 mos

SOFIA E/PO Full Ops plan

Components of the E/PO office:

Education

(GOAL: improve science education, promote space science and NASA in 1000 communities nationwide over 20 years)

1) enrichment for educators: flights, partnerships with local SOFIA scientists, workshops
2) production and dissemination of curricula, class activities

Public Affairs and Outreach

1) relationships w/ media & journalists (flights, workshops, background information; assistance to scientists)
2) press releases regarding project achievements and events
3) SOFIA project web pages - overall content
4) participation in media productions, public displays (e.g. air shows) & conference displays

E/PO Full Ops plan, continued

Activities of E/PO office in Full Ops:

1) manage yearly cycle of educator applications: publicity, collection, judging, scheduling
2) train educators (+ journalists), accompany on flights, facilitate post-flight impact in school districts
3) produce science visualizations, planetarium shows, museum exhibits, NOVA segments (w/ Origins collaborators)
4) foster media relations, produce press releases for investigators and educators
5) manage relations between SOFIA scientists & engineers and local teachers (as in ASP's Project ASTRO)
6) arrange summer research partnerships at Ames for college science and engineering students ("REU") and faculty

E/PO Full Ops plan, continued

E/PO Personnel (following PM17 and PM09):

(1) Associate Director for E/PO	1.0 FTE
(2) Education Assistants	2.0
(3) Public Affairs Manager	1.0
(4) Public Affairs Assistants	2.0
(5) E/PO Admin. Assistant	1.0
Total regular staff	7.0 FTE
Visiting staff (rotating, contracts)	4.0 FTE

E/PO estimated budget (2008 $) for mature operations:

TOTAL	$2.52 M

E/PO participation in Early Release Observations

- Some talking points:
  - Instrument teams have already been queried for suggestions of "First Light" / ERO observations
  - For E/PO to produce high-quality graphics and materials to support press releases, really need lead time of 1+ year
  - NOT envisioning one big "splash" press conference a la` Spitzer; rather, ERO observations and their publicity will likely be spread over a period of a year [precise policy to be set by the observatory director's office]