

### **3. Status of Action Items**

---

WRF Executive Oversight Board Meeting 2  
30 July 2004

## Action Item 1.1: Program Coordinator

Change slide 1.2.6 (WRF Phase 1 Goals) to **show a separate research-focused goal**: “Create and release WRF as the next-generation mesoscale NWP modeling system supported to the research community.”

---

Action taken:        - Status: Done        (Slide also appears as slide 2.2.3 for Meeting 2)

                             - Item closed, 1 June 2004.

### *Notes for Action Item tracking:*

- *WRF ExOB meetings are numbered consecutively, from Meeting 1 held on 1 Dec. 2003.*
- *Slides are referenced by their meeting number, brief number and the **slide** number within each brief. The brief number is given according to its order of appearance in the corresponding ExOB meeting, as indicated on the opening slide of each. So, slide 1.2.6 refers to the 6<sup>th</sup> slide in Briefing 2 presented at ExOB Meeting 1 of 1 Dec. 2003.*

## Action Item 1.2: Program Coordinator

**Change to slide 1.2.8:** As a consequence of the new goal on slide 1.2.6 (Action Item 1.1), the sub-bullets on slide 1.2.8 that discuss Reference code will be moved to a **new “Desired Outcomes” slide corresponding to the new research-focused goal** defined on slide 1.2.6. In addition the objective for the Reference code will be to support three cores to the atmospheric science community instead of two cores.

---

Action taken:      - Status: Done      (New desired outcome slide also appears as slide 2.2.7 for Meeting 2.)

- Item closed, 1 June 2004.

## Action Item 1.3: Program Coordinator

Establish **performance metrics** to assist members in tracking WRF improvements, using metrics that can be augmented as needed.

---

Action taken: - Status: Done (Shown in green boxes of slides 2.2.5-10 for Meeting 2.)

- Item closed, 30 June 2004.

## Action Item 1.4: Program Coordinator

Establish **periodic informational briefings** for ExOB members (at intervals, as requested by members) on WRF program developments occurring between meetings of the ExOB.

---

Action taken:

- Status: **Open**

- Agenda Item 7-2, ExOB Meeting 2, proposes establishment of a monthly summary report from the PO on WRF program news, activities and actions in “bullet” format.
- Approval by ExOB requested.

## Action Item 1.5: Program Coordinator

Through the Program Office, **draft and submit a WRF AOP** to the ExOB by 31 January 2004. The AOP would identify deficiencies and opportunities, and identify agency leads, deliverables, milestones, resources needed, and agency commitments. Amend the WRF Partnership/Vision slides to indicate an AOP along with references to the WRF five-year plan (slide 1.2.9 and following).

---

- Action taken: - Slide 1.2.9 was modified accordingly (also see slide 2.2.9)
- Status: Open
- A sample AOP was developed in January, but there was insufficient information available to create a program-wide AOP for FY04 (not distributed). An AOP in briefing form has been drafted for FY05 and is provided as briefing 2.6. Since coordination through the PO is just spinning up, it may be necessary to make further refinements before final ExOB approval of the draft FY05 AOP.
  - Endorsement by ExOB for draft's direction is requested. Final approval to be requested after further input from PO.
  - Target approval date: 31 August 2004

## Action Item 1.6: Program Coordinator

**Ensure that standard elements, levels, etc., of the common modeling infrastructure are defined that will facilitate the Navy's effort to establish interoperability of WRF and COAMPS at the level of input and output data files.**

---

Action taken:

Status:

Open

- Draft version of WRF infrastructure developer-level documentation is underway and on track.
- On-line code browser written and available on WRF web site.
- Draft documentation to be completed by 30 Sept. 2004

## Action Item 1.7: Program Coordinator

### Change Slide 1.3.16, as follows:

- (first bullet) “Modify the existing WRF Software Infrastructure to enhance the functionality, usability and extensibility in sync with an ESMF end state”
  - (third bullet) change “Create” to “Publish”
  - (fourth bullet) change “Establish” to “Upgrade” since NCAR already has a form of on-line WRF services.
- 

Action taken: - Status: Done (New version of slide 1.3.16 also appears as slide 2.2.12 for Meeting 2.)

- Item closed, 1 June 2004.

## **Action Item 1.8: Program Coordinator**

**The PC, with assistance from the PO, will provide the ExOB with a proposal for establishing a team to alleviate the deficiencies of the WRF Common Software Modeling Infrastructure, including goals, desired outcomes, success metrics in terms of thresholds and objectives, milestones and suspense dates, and resource requirements.**

---

Action taken: - Status: Done (Appears as slide 2.2.11-17 for Meeting 2.)

- Item closed, 30 July 2004.

## Action Item 1.9: ExOB

**Approve or modify the proposed approach submitted by PC for alleviating deficiencies of the WRF Software **Engineering** Modeling Infrastructure and provide resources.**

---

- Action taken: - Status: **Open** (Appears as slide 2.2.11-17 for Meeting 2.)
- ExOB approve or indicate continuation of planning approach
  - NOAA/OS&T provided resources for university participation in infrastructure special training workshop and documentation writing.
  - **NCAR, NCEP and FSL have contributed substantial resources to write portions of the documentation for the software engineering infrastructure.**

## Action Item 1.10: Program Coordinator

**Develop a proposal for a sustainable process by which deficiencies in and opportunities for WRF code and system can be identified and prioritized on a continuing basis, responses planned and resources assigned as part of the WRF Annual Operating Plan.**

---

Action taken:

-Status: **Open**

- Site visits made by PC and DTC Director to NCEP, NCAR, AFWA, FSL, FNMOC and NRL to discuss WRF planning, code and documentation issues, DTC projects and WRF management.
- Semi-annual site visits are planned to continue.
- Institutional POCs will be polled for updates of their institution's WRF-related planning elements, which will be developed into an AOP draft by the PO.
- Draft AOP **consistent with WRF 5-year plan, to be** reviewed by WRAB & WORB Heads.
- Following review, AOP to be forwarded to ExOB.

## **Action Item 1.11: Program Coordinator**

**Change slide 1.4.6 to add asterisked notes to reflect ExOB decision to...**

- **Establish a physical DTC in Boulder, resourced by NCAR and NOAA (Threshold outcome, Phase 1)**
  - **Extend DTC as a distributed facility with Boulder as its hub by establishing common goals and standards by which existing centers can identify and establish overlap. (Objective outcome, Phase 2)**
- 

Action taken:        -Status: Done (Appears as slide 2.3.19 for Meeting 2.)

- Item closed, 1 June 2004.

## **Action Item 1.12: Program Coordinator**

**Change slide 1.4.11 to define ExOB positions as agency billets.**

---

Action taken:      -Status: Done

- Item closed, 1 June 2004.

## Action Item 1.13: Program Coordinator

### Change Slide 1.4.6 and Board Charters as follows:

- The DTC will be “asterisked” in Slide 1.4.6 to indicate that the central DTC in Boulder and other existing centers desiring to be part of the distributed WRF DTC will develop standard operating procedures to define their relationship in the broader distributed DTC (also see Action Item 1.11).
  - The PO will include individuals with program planning and execution roles. The PO charter will be modified to reflect this dual role.
  - All WRF AIP signatory organizations will be included in the PO, and also represented on the WRF Research Applications Board and Operations Requirements Board, either directly or through their designees.
  - The WORB will have *ex officio* research members and the WRAB will have *ex officio* operations members.
- 

Action taken: - Status: Done

- TORs being developed between Central DTC and NRL, FSL

- Item closed, 1 June 2004.

## Action Item 1.14: Program Coordinator

**The PC will nominate heads for the WRF boards and select members in accordance with their charters. Board heads and members will be approved by the ExOB. The PC will work with the AIP signatory agencies' ExOB members to identify agency representatives to the PO.**

---

Action taken:

- Status: **Open**

- PO Points of Contact designated
- Heads of WRAB and WORB nominated/approved
- Nomination of additional members are delayed, pending approval of Board charters.

## **Action Item 1.15: Program Coordinator**

-  
**With the incumbent ExOB members as POCs, the Signatory Agencies will identify a deputy for each ExOB member, if so desired.**

---

Action taken:      - Status: Done  
  
                         - Item closed, 1 June 2004

## Action Item 1.16: Program Coordinator and DTC Director

**Establish a formal POC with NSF, to be approved by the ExOB, and discuss possibilities and terms for joint AOs between NSF and WRF Program.**

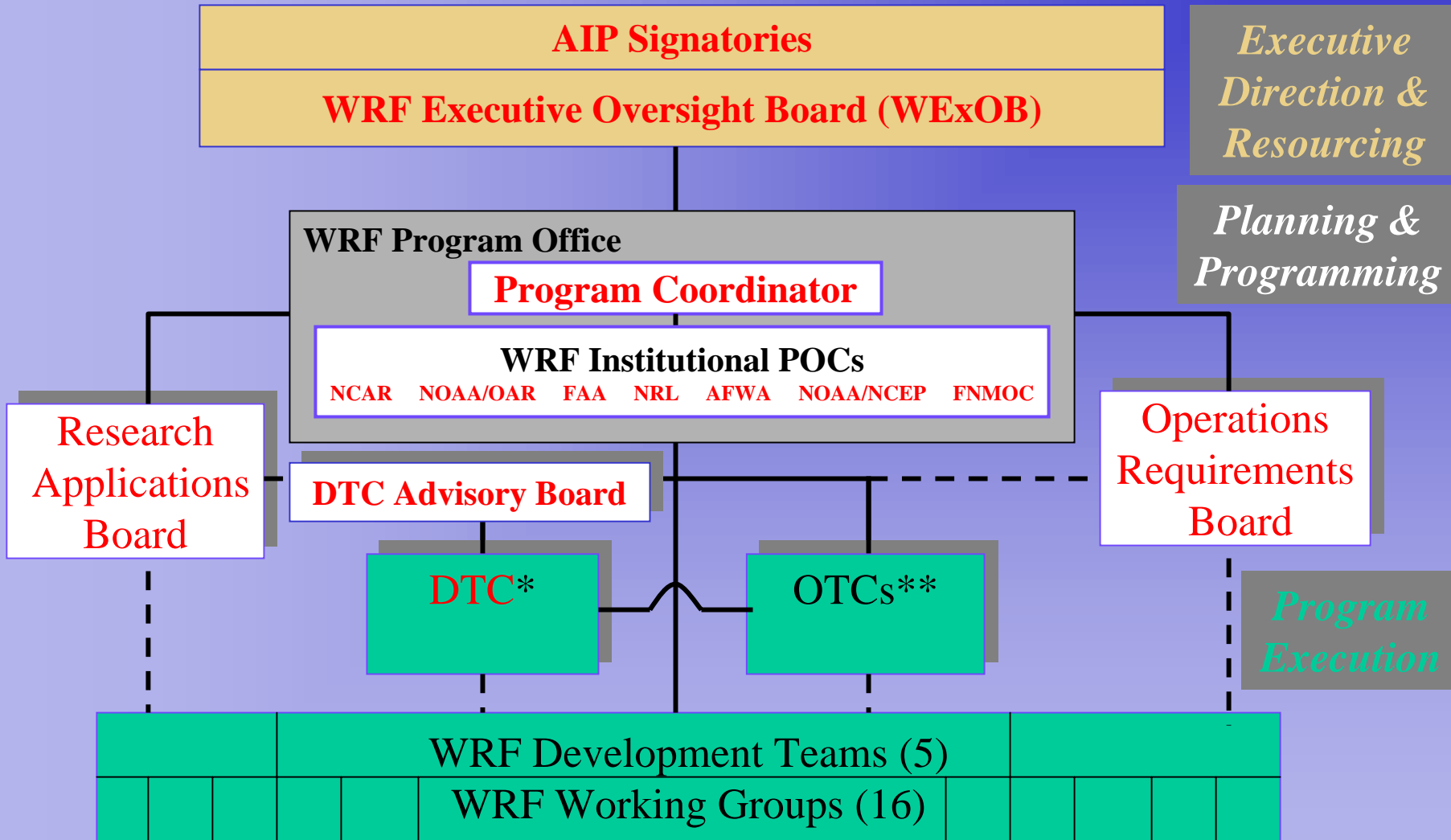
---

Action taken:

- Status: **Open**

- PC visited U.OK (April) to discuss how to approach NSF for support of university participation in WRF.
- PC and DTC Director briefed NSF administrators (May) on the WRF Program and need for NSF role to support participation by academic community.
- Dr. Kelvin Droegemeier, **Director of OU CAPS**, agreed (July) to lead effort to petition NSF on behalf of universities to actively support their participation in WRF program research.

# WRF Management Structure



\* Note – The DTC is a distributed capability, centered in Boulder, CO

\*\* Note – separate OTC functions exist for each OPC

# WRF Development Teams and Working Groups

Numerics and Software (J. Klemp)	Data Assimilation (C. Bishop)	Analysis and Validation (K. Droegemeier)	Community Involvement (W. Kuo)	Operational Implementation (G. DiMego)
Dynamic Model Numerics (W. Skamarock) WG1	Standard Initialization (W. Wang) WG3	Analysis and Visualization (M. Stoelinga) WG6	Workshops, Distribution, and Support (J. Dudhia) WG8	Data Handling and Archive (G. DiMego) WG12
			Model Physics (J. Brown) WG5	
Software Architecture, Standards, and Implementation (J. Michalakes) WG2	3-D Var (J. Derber) WG4	Model Testing and Verification (C. Davis) WG7	Atmospheric Chemistry (G. Grell) WG11	Operational Requirements (G. DiMego) WG9
			Land Surface Models (J. Wegiel) WG14	Operational Forecaster Training (T. Spangler) WG15
	Advanced Techniques (D. Barker) WG10	Ensemble Forecasting (D. Stensrud) WG13	Regional Climate Modeling (R. Leung) WG16	