

Dear NSF Manager,

I am writing to express my strong concern about the announced intent to restructure NCAR. I am a former Program Director in the Division of Atmospheric and Geospace Sciences and have many years of direct experience with NCAR.

1. While there is community input requested via the DCL at hand, it does NOT appear that community input was requested about the need for this restructuring. **NSF has not made a case for why radical restructuring is needed.**
2. It is not clear **what problems are to be solved**, and how any **efficiencies** are to be found, if any. I am quite skeptical that dismantling NCAR will save any costs. On the contrary, any move and change will require considerable resources and will lead to upheaval in the staff that may lead to unwanted resignations and loss of expertise.
3. Rethinking and, if needed, restructuring existing systems can be valuable. However, NSF is not doing this in a thoughtful manner that puts scientific considerations first. NCAR and NSF's approach to managing NCAR has evolved over time. **Management of NCAR has been competed** in recent decades and private enterprises had the opportunity to apply and will do so again in the future. NCAR continues to be **externally reviewed in great detail**. Suggestions for change from the review process have been taken into consideration. It is not clear why dismantling is called for.
4. NCAR has increasingly focused on those activities that can only be done by the center, which is appropriate. While certain activities can be carried out by non-co-located partners, others, **especially facilities management, has to be tightly integrated and therefore co-located**. For the support of field programs, aircraft support, instrument support, project management, data archiving, community outreach, and public outreach, as well as student engagement need to be managed together.
5. Having said that, the observation facility (EOL) is not isolated from the other components of NCAR. For instance, MMM and ACOM provide the expertise in **meteorology and atmospheric chemistry**, which are strongly interlinked fields, as well as **instrument development** for deployment by EOL.
6. In the modeling domain, the future is in **integrated models** which encompass dynamics, chemistry, biogeochemical cycles, and the upper atmosphere. Thus tight collaborations among CISL, CGD, MMM, ACOM, and HAO are crucial. In turn, models are based on an ever improving **fundamental understanding of atmospheric processes**, which is gained by field measurements.

7. The airborne facilities (which I am most familiar with) **do not duplicate anything** operated by other agencies - if anything, there is a shortage of platforms for the community's needs.
8. Similarly, the **modeling activities are not duplicative**. The US needs to support several comprehensive models, since the comparison among them is crucial for the improvement of each of them.
9. The **student training and professional development opportunities** offered at NCAR are uniquely valuable precisely because of the co-location of many scientists who perform research that is part of a larger whole. Outreach to the public brings atmospheric science to the "consumer" - those who need to understand weather, space weather, air quality, climate, etc. This includes the commercial sector (such as insurance companies, utilities, private weather companies, the airline industry etc.) In that vein, the integration of EDEC in the NCAR whole is a must. EDEC works closely with the other units of NCAR and could not possibly be "taken out."
10. RAL responds to the need for taking the fundamental discoveries to more **applied needs**. It thus also needs to be tightly integrated under the NCAR roof.
11. That said, NCAR should not be an island to its own, but rather **collaborate with other agencies, universities, and the private sector**. NCAR is an incredibly valuable resource to the country and it should continue to engage with other institutions to ensure meaningful use of its products and services.
12. Regarding **metrics for NCAR**: I believe that in addition to the quality and relevance of the research, the "broader impacts" in terms of community "service," provision of training opportunities, public outreach, and the cohesion of the activities funded by NSF ("centerness") should be at the top.

I appreciate the opportunity to provide comments on this topic. I would be glad to respond to any questions beyond this input.

Respectfully,  
Anne-Marie Schmoltner  
(retired from NSF)