Report On The Findings And Recommendations From
The Fall 2013 Proposal Audit Cycle

submitted to

The UCAR Governance Office

by

PACUR Non-Core Proposal Review Subcommittee

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Introduction

The PACUR Non-Core Proposal Review Subcommittee has completed its Fall 2013 audit of a selected subset of non-core proposals submitted from NCAR between the period of 1 January 2013 and 30 September 2013. This report describes the outcome of this audit.

Proposal statistics

Relative to the previous cycle, the total number of NCAR proposals rose from 69 to 97. This slightly increased value does not include proposals from UCP, which are now excluded from PACUR audits, and only includes proposals with budgets exceeding $300K (in contrast to the previous budget threshold of $100K). However, it does account for a somewhat longer time period (nine months instead of six months).

Figure 1. Numbers of proposals submitted by NCAR that exceeded the $100K threshold from 2009-2012. The 2013 proposal numbers represent only those submitted by NCAR, with budgets exceeding $300K.

Figure 1 shows the number of proposals for NCAR over eight six-month review cycles, in addition to the current nine-month cycle. Direct comparison of the current numbers with those over the previous cycles is a bit difficult owing to the change in budget threshold as noted above. The 2013 cycle numbers do appear to be consistent with previously observed fluctuations, which are due in part to special opportunities and
As indicated in Fig. 1, the proposals are categorized by their level of collaborations with universities, with 3a representing joint proposals, 3b for proposals with funding to/from university partners, 3c representing collaborative with no funding to or from university partners, and 3d representing no university collaboration. The distribution of the proposals among different categories and different NCAR units is shown in Table 1 for the current review cycle.

*Table 1. Proposal distribution*

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>3a</th>
<th>3b</th>
<th>3c</th>
<th>3d</th>
<th>3a+3b</th>
<th>3c+3d</th>
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<tbody>
<tr>
<td>All</td>
<td>97</td>
<td>24 (25%)</td>
<td>44 (45%)</td>
<td>11 (11%)</td>
<td>18 (19%)</td>
<td>68 (70%)</td>
<td>29 (30%)</td>
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<td>CISL</td>
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<td>1</td>
<td>5</td>
<td>1</td>
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<tr>
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<td>9</td>
<td>16</td>
<td>4</td>
<td>5</td>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td>RAL</td>
<td>35</td>
<td>11</td>
<td>13</td>
<td>4</td>
<td>7</td>
<td>24</td>
<td>11</td>
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<tr>
<td>HAO</td>
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<td>1</td>
<td>12</td>
<td>3</td>
<td>3</td>
<td>13</td>
<td>6</td>
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</tbody>
</table>

Note: The percentage is calculated based on the total number of proposals for each individual category.

The distribution of NCAR proposals is consistent with prior audits. The largest percentage of the proposals is in the 3b category (45%). Proposals that had direct collaborations with university partners with some level of funding exchange (3a+3b) account for 70% of the total proposals (compared to 65% in the previous review) and those with either some collaboration but no funding or no collaboration at all (3c+3d), account for 30% (compared to 35% in the previous review). The percentage of 3d proposals is 19% compared to 27% in the previous reviews.

**Proposal Selection**

As in the past, the Subcommittee Chair selected a subset of proposals for audit. The selection was made based on a set of criteria developed during previous audit cycles. The subset reflects a mix of funding agencies, small and large grant amounts, and basic science and technology transfer proposals. Twenty-four proposals were selected for the Subcommittee audit, which is within the recommended range of 10-30%. The chair reviewed all 24, and each committee member reviewed about 18. Every reviewed proposal was read by at least three of the four members of the Subcommittee. The selection yielded: 6 of 3a proposals, 10 of 3b proposals; 3 of 3c proposals; and 5 of 3d proposals.

**Findings**

The Subcommittee held a teleconference on 7 January 2014. In general the proposals appeared to meet the compliance criteria, but the Subcommittee did discuss several and generated some questions. The questions are given below along with the NCAR responses. On the basis of the NCAR responses, the Subcommittee members believe that all of the proposals are compliant.
Specific questions and NCAR responses:

1. Proposal 1244: The role of AECOM in the proposal structure is unclear. Did AECOM solicit subsidiary (but separate) proposals from NCAR and University of Texas, and then submit a primary, single proposal to USAID? Should this proposal be better classified as a 3b?

Correct, AECOM as the lead organization requested proposals from both NCAR and University of Texas and submitted as a single proposal to USAID. If awarded, AECOM would issue separate subawards to NCAR and University of Texas. A joint 3a proposal is described as a separate proposal from NCAR and from the university, while a 3b proposal is described as a proposal with funding to or from the university partner. In this case, NCAR and University of Texas submitted separate proposals to AECOM which follows the 3a categorization. If NCAR had submitted the proposal to University of Texas or vice versa the proposal would have been classified as 3b.

2. Proposal 1290: What percentage of the total NCAR budget is devoted to NASA scientists? We found this arrangement to be a bit out of the ordinary, but we also ask because apparently only a relatively small amount (11%) of the total budget supports the University of Kansas contribution to the project.

The proposal includes significant collaboration with the University of Kansas through their involvement of conducting the field site level assessment of the burning impacts in central US grasslands, conducting satellite data analysis, and conducting the validation of the Noah-MP model focusing on the impacts of burning and the interannual variability of the surface variables pre- and post-burn, as well as involvement of a graduate student. The University of Kansas requested salary support for the PI (33% effort over 3 months per year), salary support for a graduate student (50% effort over 3 months per year), travel for the PI and graduate student to attend a conference each year, publication costs, lab supplies and tuition for the graduate student.

The amount of funding requested by NCAR totals $1,021,352, which includes a subaward to the University of Kansas in the amount of $115,069. If awarded, NCAR would receive a total of $1,021,352 and would issue a subaward to University of Kansas for their $115k. In addition, the proposal submitted to NASA references an amount of $1,284,908, which includes $263,556 or 20.5% of the total budget to NASA Goddard. If awarded, $263,556 would be awarded directly to NASA, thus this funding would not pass through NCAR. NASA guidelines require that if the proposing organization teams with a Co-I from a US Government Organization, the budget for the proposal must include all funding requested from NASA for the proposed investigation, and this must be reflected in the budget totals that appear in the budget forms (e.g., Proposal Cover Page, Grants.gov forms, Budget Details). Any required budget for that Government Co-I and/or facility should be included in the proposal’s Budget Narrative and should be listed as "Other Applicable Costs" in the required Budget Details. If the proposal is selected, NASA will execute an inter- or intra-Agency transfer of funds, as appropriate, to cover the applicable costs at that Government organization.

3. 1267: We understand the challenges with this type of funding opportunity, but are having difficulty accepting this proposal as a 3c, especially considering that it is not a requirement that the final research team have a university member. To help us with this...
acceptance, we ask if UCAR could provide us with data from previous successful proposals to NASA’s Living with a Star program. Specifically: How often have they included a university member in the research team?

Per section R5 “Science Team Proposals” of the Review of PACUR Non-Core Proposal Review Process, PACUR agreed to the Recommendation that “Proposals responding to calls for the development of a multi-institution science team should be checked as 3c using an allowable standard response (e.g., select button or checkbox) and no letters of university collaboration should be required as long as the sponsoring agencies solicitation clearly identifies the development of a science team in the Advance Notice”. Information regarding NASA’s Living With a Star Focus Teams that have been formed in prior years can be found at the following link: http://lwstrt.gsfc.nasa.gov/trt_focusteams.htm

(Additional note: perusal of this website shows that PI affiliations are only listed with the 2012 and 2010 proposals. NCAR and UCAR had involvement in two proposals awarded in 2012:

**Atmosphere-Ionosphere Coupling During Stratospheric Sudden Warmings**
Qian Wu, NCAR/HAO
Alan Burms, UCAR
Astrid Maute, UCAR

**Cross-Discipline Infrastructure Building Programs**
Meg Austin, UCAR

In both cases, the science teams had university members.)

4. Proposal 0069: Will the “forecast engine” to be developed for Brightsource be made available to the community? Our concern is that there will be copyright issues that will prohibit a community benefit from this proposed model development.

The “forecast engine” as described in the proposal abstract is the open source version of the WRF core dynamics that runs on a rapid update cycle and assimilates satellite cloud data that is described in the response to question 3d. If this proposal had been funded, it would have provided further resources to advance the WRF community model.

1565: The following, somewhat tangential question regards the UCAR facilities made available to the PIs of this project: Is there a clear procedure for members of the university community to gain access to the NCAR machine shop?

Yes, the EOL Machine Shop does have a clear procedure for members of the university community to request design and fabrication services. The procedure can be found at the following link: https://www.eol.ucar.edu/content/doing-business-us-0
In addition to the EOL Director approving all work, the NCAR Budget and Planning Office reviews and approves all requests. The work proposed must be appropriate to the mission of EOL/NCAR.