

Committee of Visitors Report

ICC, IFE, GPP

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April 2005

Outline

- The Charge
- The Programs being reviewed
- The Panel
- The Process
- The Findings
- The Recommendations

The Charge

Assess, the efficiency and quality of the processes used to:

- Solicit, review, recommend and document proposal actions
- Establish the consistency between award decisions and OFES programs and goals
- Monitor active projects and programs
- The breadth, quality and balance of portfolio elements
- The national and international standing of the portfolio elements

The Programs Being Reviewed

- NSF/DOE joint program
- General plasma physics program at the national laboratories
- Fusion Science Centers
- Atomic physics
- Junior faculty program
- Innovative confinement concepts
- Inertial fusion energy/high energy density physics

The Panel

Name	Institution	Expertise
Jeff Freidberg (Chair)	MIT	Tokamaks/ICC
Don Batchelor	ORNL	Tokamaks
Jeff Coderre	MIT	Non-fusion
Fred Driscoll	UCSD	Basic Plasma Physics
Gail Glendinning	LLNL	IFE/HEDP
Chuck Greenfield	General Atomics	Tokamaks
Dave Hammer	Cornell	Basic Plasma Physics
Mike Mauel	Columbia	ICC/Tokamaks
Ed Ott	U. of Maryland	Non-fusion
John Sarff	U. of Wisconsin	ICC/Basic Plasma Physics
Ed Thomas	Auburn U.	Basic Plasma Physics
Francois Waelbroeck	U. Texas, Austin	ICC/IFE/Tokamaks
Harold Weitzner	NYU	ICC/Tokamaks
Dan Winske	LANL	Non-fusion

The Process

- E-mails and conference phone calls
- A questionnaire sent to OFES
- A survey sent to the fusion community
- A 2 day site visit to OFES
- Completion of the report

Finding A

Overall Summary

- OFES is doing a good job
- Staff is serious, conscientious, dedicated
- Fusion community agrees (from survey)
- Biggest concern – flat budgets

Finding B

Solicitation of proposals

- Notices on several official websites
- Notices on FIRE, FPA, UFA
- Town meetings at APS
- Community is well informed

Finding C

Reviewing of proposals

- Quality of reviewers is very good
- However, there is no computerized list

- Site visit: built in rebuttal
- Mail review: unclear rebuttal procedure

Finding C (cont.)

- **Improve grading system**

5	Excellent	→	Must fund
4	Very good	→	Deserves funding
3	Good	→	OK to fund
2	Fair	→	Marginal
1	Poor	→	Do not fund

Finding C (cont.)

- Significant variation in reviewer's scores
- Peer review provides a good guideline
- It is not razor sharp accurate
- OFES is aware of the situation
- Instituted an internal review team procedure
- This is a good idea
- OFES must use their discretion

Summary of Review Data

						Junior Faculty Program				
Year	Identifier	Rating 1	Rating 2	Rating 3	Rating 4	Rating 5	Average	Std. Dev.	Funded Y or N	Discretion
2004	92937	4	4	4			4.00	0.00	Y	
	92950	5	3	3.3			3.77	1.08	Y	
	92935	3	4	4			3.67	0.58	Y	
	92938	4	3	3			3.33	0.58	N	
	92940	4	4	1			3.00	1.73	N	
2003	89503	3	5	4	5	5	4.40	0.89	Y	
	89502	4	5	4	4.5		4.38	0.48	Y	
	89506	5	4	3.5			4.17	0.76	Y	
	89458	5	3	4.5			4.17	1.04	N	X
	89500	5	3	3	2.5		3.38	1.11	N	
	89479	2	3	2			2.33	0.58	N	
	89488	4	1	1	3		2.25	1.50	N	
2002	85915	5	5	4	4		4.50	0.58	Y	
	85980	4	4	5	5		4.50	0.58	Y	
	86039	4	4	4.5			4.17	0.29	Y	
	85916	4	5	5			4.67	0.58	N	X
	86037	4	5	2			3.67	1.53	N	
	85903	2.5	4	4			3.50	0.87	N	
	86031	3	3.5				3.25	0.35	N	
	86041	3	1	5			3.00	2.00	N	
	86000	3	2				2.50	0.71	N	
	86023	1	1	1	4		1.75	1.50	N	
	3 year average						3.56			
	3 year STD						0.82			
	Average 3 year STD							0.88		

Finding C (cont.)

- Flat budget implies many renewals funded
- Hard, but not impossible for newcomers to break into the field
- Reasonable turnover of projects
- Compassion for closeouts
- Information systems and data gathering need improvement

Finding C (cont.)

Peer review has

- Increased fairness
- Increased proposal quality
- Increased proposal review quality
- Maybe increased research quality – no metrics
- Increased work of the fusion community and OFES
- Maybe too many new initiatives

Finding D

Fusion Science Center Solicitation

- Overall OFES did a very good job
- Only issue: Maybe too many insiders on the review panel

Finding E

Funding level of proposals

- In 2003 Request/Funding = 100%
- In 2004 Request/Funding = 86%
- OFES is very aware of the dangers of under-funding and over-asking
- OFES tries hard to avoid this situation

Finding F

Monitoring of proposals

- Overall OFES does a good job monitoring progress
- Community agrees
- A few small projects say there is almost no contact
- Very large projects report weekly: excessive?

Finding G

International reputation

- No simple metrics to evaluate
- Recent reviews and community survey believe US programs are highly respected by international colleagues
- Community also notes international programs have a stronger emphasis on energy

Recommendation A

A rebuttal procedure

OFES should develop a uniform, clearly stated, rebuttal procedure for proposal writers

Recommendation A (cont.)

- Community does not understand whether a rebuttal procedure exists
- When rebuttals are allowed community does not know if they have any impact
- COV agrees that a uniform rebuttal procedure makes good sense
- However, it should not add too much more time to the review process

Recommendation B

Improving the review process

OFES should implement several relatively simple ideas in the peer review process to improve the accuracy of the final funding decisions

Recommendation B (cont.)

- Add descriptive correlations for reviewers between scores and funding decision
- Reviewers should be allowed to use more accurate decimal scores (e.g. 4.5)
- Separate score for quality versus relevance to the RFP
- Press reviewers to give numerical scores

Recommendation C

Uniform review folders

OFES should improve the uniformity and consistency of the information contained in the review folders

Recommendation C (cont.)

- Information Systems need improvement
- Need a uniform, concise summary sheet
 - Funding decision
 - Funding level
 - Reviewer's scores
 - Justification for funding
 - Justification for not funding
 - Reviewer's comments
 - Rebuttal discussion
- Big picture summary

Conclusion

- ICC, IFE, GPP are high quality programs
- Well managed by OFES
- Biggest problem – flat budget