

Al Condes
Director
Earth Science Division
Office of External Relations
NASA

2-April-01

Dear Dr Condes

Thank you for your letter of March 6 2001 outlining the principles and agreements associated with the pursuit of the objectives of our proposal to NASA entitled "Evaluation of Hyperion Performance at Australian Hyperspectral Calibration & Validation Sites".

CSIRO has considered the conditions and is in full agreement with the terms your letter outlines. This letter confirms that agreement. We will take our participation and the obligations it involves seriously to ensure a satisfactory result from the collaboration.

This letter also confirms that I am the nominated PI and that I will undertake the responsibilities of the PI outlined in your letter. Your letter refers to nominated Co-Is but these were not attached to the letter. I have therefore attached the CSIRO list of nominated Co-Is for your consideration and approval.

The Co-I list attached contains the seven people nominated in the original proposal plus two others. The two new Co-Is (Tim McVicar and Nicholas Coops) have been added because they are associated with new sites where there has been a significant increase in attention and activity for EO-1 validation – including interaction with US EO-1 PIs who are members of the SVT.

The Co-Is listed in the attachment are from CSIRO except for two (Craig Smith and Terry Cocks). We have confirmation from them and their organizations that they agree to respect all the conditions of the letter of agreement that you have sent to me and will work to see the Australian project achieve its objectives.

To make an effort like this possible, we must also involve a number of other people and groups. I would like to inform you of these interactions and seek approval for our actions.

Firstly, there are a number of CSIRO scientists associated with the Co-Is whose activities are in many cases equivalent in input level and workload to those of the Co-Is. However, to maintain a simple and workable interface I feel it is better not to make the nominated Co-I list very long but rather to list these associated scientists and seek approval from you for their access to data and the SVT activities and meetings at a similar level to that of the Co-Is. As CSIRO employees they will be bound strictly by the agreements in our letters.

The associated CSIRO scientists are:

Name	Associated Site(s)	Email
Arnold Dekker	Moreton Bay, Cape Tribulation	Arnold.Dekker@cbr.clw.csiro.au
Tom Van Niel	Coleambally	Thomas.Van.Niel@cbr.clw.csiro.au
Vanessa Chewings	Kunoth (Alice Springs)	V.Chewings@dwe.csiro.au
Ross Mitchell	Lake Argyle, Tinga Tingana, Lake Frome	Ross.Mitchell@dar.csiro.au
Cindy Ong	Kakadu (Ranger)	Cindy.Ong@per.dem.csiro.au
Fred Prata	Uardry (Hay)	Fred.Prata@dar.csiro.au

In all cases, they will certainly be kept informed by one or more of the Co-Is with whom they are working closely at the various nominated Australian validation sites.

The Co-Is and the above associated group also have some associations with third parties who have agreed to collect data or otherwise contribute in-kind to validation. It has been made clear, however, to all such groups that the conditions of the NASA agreement mean that EO-1 data and access to results of other SVT members will not be transferable while the SVT is active and until NASA declares the SVT to have completed its tasks. These groups are looking to the future general data access as the time when they will undertake their own work. They are all happy with this condition.

All of us here are looking forward to an exciting year of involvement with NASA and the high-class team of SVT scientists you have gathered to evaluate and improve the data output from all of the EO-1 sensors and Hyperion in particular. As you note, I will be key point of contact for the investigation listed here and I will ensure that Garik Gutman as NASA point of contact and Steve Ungar as Senior Mission Scientist are both kept informed of any issues that arise and of our progress.

Thank you for the opportunity of working with NASA on this ground-breaking mission. We are certainly looking forward to its success and to its contribution to all of our objectives in earth observation.

Yours sincerely

Dlbj

CC Justin Tilman NASA
Garik Gutman, NASA
Steve Ungar (NASA)

(with copy of NASA letter)
Chiefs of Divisions and organizations involved.
Murray Cameron

04/12/01

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Dr. David Jupp
Head, CSIRO Office of Space Science and Applications
CSIRO Australia
GPO Box 3023
Canberra ACT 2601
Australia

Dear Dr. Jupp:

In response to the April 2, 1999, National Aeronautics and Space Administration (NASA) – U.S. Geological Survey (USGS) NASA Research Announcement (NRA-99-OES-01) for the Earth Observing-1 Mission Instrument Performance Evaluation and Data Validation (EO-1 Validation) Program, NASA received a proposal from Dr. David L B Jupp of the CSIRO Office of Space Science and Applications (COSSA) entitled “Evaluation of Hyperion Performance at Australian Hyperspectral Calibration and Validation Sites.” This proposal was selected by NASA to conduct scientific investigations to validate the NASA New Millennium Program’s (NMP) Earth Observing-1 (EO-1) mission technologies and to assess EO-1 spectral imaging for science and applications research. The NMP EO-1 mission’s primary goal is to flight validate advanced technologies applicable to future land imaging missions. The highest priority is to validate the Advanced Land Imager (ALI) instrument. Validation of Hyperion and the Leisa Atmospheric Corrector instruments is of next highest priority for this mission focused on technology demonstration.

To ensure sustained and satisfactory progress by Australian components of this investigation, CSIRO will sponsor the participation of Dr. Jupp as the Principal Investigator (PI) and selected CSIRO Co-Investigators (Co-I’s) named in this proposal. As PI, Dr. Jupp will be the key point of contact with NASA for this scientific investigation and will coordinate research efforts among the Co-I’s. In the event of a proposed substitution of the CSIRO-sponsored PI, Dr. Jupp, CSIRO will request approval of the replacement by the NASA EO-1 Program Scientist. In addition, if there is a proposed substitution of any of the CSIRO-sponsored Co-I’s on the science investigation team, CSIRO will request approval of the replacement by the NASA EO-1 Program Scientist through the PI.

“Evaluation of Hyperion Performance at Australian Hyperspectral Calibration and Validation Sites” is a scientific investigation using existing Australian calibration and validation sites and specific existing hyperspectral test sites with a range of existing and ongoing data collection and analysis programs to evaluate Hyperion instrument and product performance.

CSIRO will have representatives on the EO-1 Validation Team and will cooperate with NASA on validation of scientific data and initial data evaluation studies. NASA will convene

and support Validation Team meetings and develop plans for algorithm implementation and the overall data validation strategy, incorporating CSIRO activities, as appropriate.

NASA proposes the following arrangements to implement this EO-1 cooperative effort between NASA and CSIRO (hereinafter “the Parties”).

Responsibilities

NASA will use reasonable efforts to fulfill the following responsibilities:

1. Develop, build and launch the EO-1 spacecraft;
2. Support NASA-sponsored EO-1 Validation Team members in the verification of instrument performance and data quality on the EO-1 spacecraft;
3. Support NASA-sponsored mission operations, analysis software development, and data production; and
4. Support the timely public release of results of the EO-1 Validation Program in order to ensure that future land imaging missions are able to benefit from the results of EO-1 technology demonstrations.

CSIRO will use reasonable efforts to fulfill the following responsibilities:

1. Support the participation of the CSIRO-sponsored PI and CSIRO-sponsored Co-I's in the design and implementation of a scientific validation investigation requiring analysis and interpretation of data from the EO-1 Hyperion sensor;
2. Support the analysis and timely delivery by the CSIRO-sponsored PI and CSIRO-sponsored Co-I's of scientific results of the CSIRO-sponsored validation investigation to the EO-1 Science Validation Facility, in accordance with schedules developed by the CSIRO-sponsored PI in coordination with the NASA EO-1 Project Scientist;
3. Support the attendance of the CSIRO-sponsored PI and CSIRO-sponsored Co-I's at EO-1 Validation Team meetings, as requested by NASA;
4. Support the progress review of the investigation once every year in the form of a written progress report to the NASA EO-1 Program Scientist; and
5. Ensure that all activities of the CSIRO-sponsored PI and CSIRO-sponsored Co-I's are carried out in accordance with the terms and conditions set forth herein.

Points of Contact

The NASA point of contact is:

Dr. Garik Gutman
EO-1 Program Scientist
Research Division (Code YS)
NASA Headquarters
300 E Street, S.W.
Washington, DC 20546

Phone: 202-358-0276
Fax: 202-358-2771
E-mail: ggutman@hq.nasa.gov

The CSIRO point of contact is:

Dr. David Jupp
COSSA
CSIRO
GPO Box 3023
Canberra, ACT 2601
Australia
Phone: 61 2 6216 7203
Fax: 61 2 6216 7222
E-mail: david.jupp@eoc.csiro.au

Financial Arrangements

Each Party will bear the costs of discharging its respective responsibilities, including travel and subsistence of its own personnel and transportation of all equipment for which it is responsible. It is understood that the ability of the Parties to carry out their respective responsibilities is subject to their respective funding limitations and the availability of appropriated funds.

Public Information and Rights in Scientific Data

In order to enhance the scientific and validation return of the EO-1 mission, investigators will be required to share all data with each other upon request. The investigators will provide suitable data sets for general release to the community at the earliest possible date once verification and calibration functions are performed, but no later than six months from receipt of the data from the EO-1 Science Validation Facility. The data will be made available to all participants in the EO-1 mission and will be archived by the Parties in appropriate data archiving centers.

Results of the EO-1 mission will be made available to the scientific and technology communities in general through publication in appropriate journals or other established channels. In the event such reports or publications are copyrighted, the Parties shall have a royalty-free right under the copyright to reproduce, distribute and use such copyrighted work for their own purposes.

Release of public information regarding this project may be made by the appropriate agency for its own portion of the program as desired and, insofar as participation of the other is involved, after suitable consultation.

Invention Rights

Nothing in this agreement shall be construed as granting or implying any rights to, or interest in, patents or inventions of the Parties or their contractors or subcontractors.

Exchange of Technical Data and Goods

The Parties are obligated to transfer only those technical data (including software) and goods necessary to fulfill their respective responsibilities under this agreement, in accordance with the following provisions:

1. The transfer of technical data for the purpose of discharging the Parties' responsibilities with regard to interface, integration, and safety shall normally be made without restriction, except as required by national laws and regulations relating to export control or the control of classified data. If design, manufacturing, and processing data and associated software, which is proprietary but not export controlled, is necessary for interface, integration, or safety purposes, the transfer shall be made and the data and associated software shall be appropriately marked. Nothing in this agreement requires the Parties to transfer goods or technical data contrary to national laws and regulations relating to export control or control of classified data.
2. All transfers of proprietary technical data and export-controlled goods and technical data are subject to the following provisions. In the event a Party finds it necessary to transfer goods which are subject to export control or technical data which is proprietary or subject to export controls, and for which protection is to be maintained, such goods shall be specifically identified and such technical data shall be marked with a notice to indicate that they shall be used and disclosed by the receiving party and its related entities (e.g., contractors and subcontractors) only for the purposes of fulfilling the receiving Party's responsibilities under the programs implemented by this agreement, and that the identified goods and marked technical data shall not be disclosed or retransferred to any other entity without permission of the furnishing party. The receiving Party agrees to abide by the terms of the notice, and to protect any such identified goods and marked technical data from unauthorized use and disclosure, and also agrees to obtain these same obligations from its related entities prior to the transfer.
3. All goods, marked proprietary data, and marked or unmarked technical data subject to export control, which are transferred under this agreement, shall be used by the receiving Party exclusively for the purposes of the programs implemented by this agreement.

Liability

With respect to activities undertaken pursuant to this agreement, neither Party shall make any claim against the other, its employees, a related entity of the other (e.g., contractors,

subcontractors, investigators, other participating entities), or employees of the other's related entities for injury to or death of its own employees or employees of its related entities, or for damage of any kind to or loss of its own property or that of its related entities arising out of activities under this agreement, whether such injury, death, damage or loss arises through negligence or otherwise, except in the case of willful misconduct. In addition, each Party shall extend the cross-waiver of liability as set forth above to its own related entities by requiring them, by contract or otherwise, to agree to waive all claims against the entities or persons identified above.

Customs

In accordance with its laws and regulations, each Party shall facilitate free customs clearance and waiver of all applicable customs duties and taxes for equipment and related goods necessary for the implementation of this agreement. In the event that any customs duties or taxes of any kind are nonetheless levied on such equipment and related goods, such customs duties or taxes shall be borne by the Party of the country levying such customs duties or taxes. The Parties' obligation to ensure duty-free entry and exit of equipment and related goods is fully reciprocal. Also, subject to its country's laws and regulations, each of the Parties will facilitate provision of the appropriate entry documentation for the other Party's nationals who enter or exit its territory in order to carry out activities under this agreement.

Choice of Law

The Parties hereby designate the U.S. Federal law to govern this agreement for all purposes, including, but not limited to, determining the validity of the agreement, the meaning of its provisions, and the rights, obligations, and remedies of the Parties.

Consultations/Settlement of Disputes

The Parties shall consult promptly with each other on all issues involving interpretation or implementation of this agreement. Any matter that is not settled before implementation shall be referred to the appropriate points of contact named above for both NASA and CSIRO. These points of contact will attempt to resolve all issues arising from the implementation of this agreement. If they are unable to come to an agreement on any issue, then the dispute will be referred to the agreement signatories, or their designated representatives for joint resolution. If the Parties are unable to resolve this dispute, the signatory for each Party will issue a final written position on behalf of their Party before taking any further steps to resolve the dispute.

Effective Date, Duration, Termination

This agreement will go into effect upon receipt of a written affirmative reply from an authorized representative of CSIRO and will remain in effect for three years. This agreement may be renewed or amended by mutual consent or it may be terminated by one Party

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providing written notice of its intention to the other Party six months before the desired termination date.

If the above terms and conditions are acceptable to CSIRO, we propose that this letter, together with your written affirmative reply, document our joint understanding as to the implementation of this cooperative effort.

Sincerely,

Al Condes
Director
Earth Science Division
Office of External Relations

Schedule 1 – Australian Co-Investigators

Name	Institution	Telephone	Electronic Mail
Jon Huntington	CSIRO Exploration & Mining	+61 2 9490 8839	j.huntington@dem.csiro.au
Tom Cudahy	CSIRO Exploration & Mining	+61 2 9333 6244	t.cudahy@per.dem.csiro.au
Alex Held	CSIRO Land & Water	+61 2 6246 5718	alex.held@cbr.clw.csiro.au
Dean Graetz	CSIRO Earth Observation Centre	+61 2 6216 7199	dean.graetz@cossa.csiro.au
Geoff Pickup	CSIRO Land & Water	+61 2 6246 5700	geoff.pickup@cbr.clw.csiro.au
Craig Smith	ACRES	+61 2 6201 4201	c.smith@auslig.gov.au
Terry Cocks	Integrated Spectronics Ltd	+61 2 9878 0977	tdc@intspec.com
Nicholas Coops	CSIRO Forestry & Forest Products	+61 3 9545 2234	nicholas.coops@ffp.csiro.au
Tim Mc Vicar	CSIRO Land & Water	+61 2 6246 5741	tim.mcvicar@cbr.clw.csiro.au