

National Publication Policy

I WISH to first share with you some excerpts of my letter to *Aerospace America*, and some additional thoughts.

The new restrictions on technology transfer pose a potential threat for U.S. technical journals. Publication in a U.S. journal is considered technology export, because U.S. journals are mailed abroad, and foreigners may read them in U.S. libraries. DoD contractors, in the past, received an implied export license for technical data on a case-by-case basis when their contract monitor granted a public release approval.

But now we have DoD Directive 5230.25, which restricts export of unclassified technical data of "critical technology with military or space application." To determine what's critical, one then looks at the Military Critical Technology List, which is about 100 pages long.

Since the unclassified technical materials listed therein are proscribed from export, not only can they not be presented at technical meetings having foreign attendance but they *cannot* be published, even in the U.S. What are the consequences? Our technology depends on *rapid* and *complete* access to technical data which has been *refereed*. The referee process increases the accuracy of the net body of technical data. Access is provided, not by a bureaucracy, but by indexes of technical journals including on-line, key word, real-time computerized search systems. The new restriction on DoD generated technical data and its potential extension to all technology, regardless of the funding source, will end our present technical meeting and journal structure. Without them we'll falter, because it will become a nightmare firstly to locate technical data (they will only be in reports having limited distribution) and secondly to determine their validity. (Only two of the seven suggested markings permit unlimited distribution.)

As the *New York Times* pointed out, the Soviet Union has already perfected export controls of technical data. But is there even a single instance in which they have exceeded the free and open Western technology? Our regulators seem to believe that technology is something like gold: once we have it, we can bury it such as in Fort Knox under lock and key, and let only "authorized" persons gain access to it (assuming it is possible even to search for titles).

The implied compromise, that "university" research is basic research and not subject to the same restrictions, is an insult to government and industrial groups. As for "compartmentalization," this is surely the end of innovation, which comes from a synergism of different fields. How can we have new aircraft if propulsion technology is separated from airframe technology; or ceramic-metallics if metal technology is compartmentalized from ceramic technology?

After writing the above letter to *Aerospace America*, I have had additional thoughts on the problem of preventing the use of our technology by our adversaries in their development of military hardware. The concern, as expressed by Congress, is that such transfer should not give the adversary a decided military advantage over the U.S. (or its allies). That definition is probably too restrictive. Evidence has surfaced as to the enormous extent of Soviet reliance on U.S. technology. The examples given in the press describe both the years and the funds which were saved by such use. But there is a further point: even if such transfer does not give adversaries an *advantage*, it is extremely harmful even if it gives them *parity*. What is the point of our expending time, talent, and funds to develop and implement new military systems whose purpose is to give the U.S. an advantage, if this is duplicated by adver-

saries? The distinction is the timing—if there is a substantial time lag, then the U.S. can retain such superiority simply by always being ahead. The problem occurs only with *concurrent* development. If new principles are equally available, then both sides can develop new hardware simultaneously. This is the danger with which the Washington decision makers are concerned. On the other hand, if new principles are decided by bureaucratic compartmentalization, then its synergetic application to other technologies will suffer, and we become our own victims. Somewhere there must be a dividing line. My suggestion is that this line should be placed between research, e.g., the development of the principle, and applications. In DoD terms this would be somewhere in the middle of "exploratory development," which is between "basic research" and "advanced development." Furthermore, such a division could then distinguish those technical developments which are destined for hardware implementation. Such a dividing line will not please both those who advocate free exchange and those who want to bottle up all data, but it may indeed be the optimum solution for the U.S. in that it maximizes our net technology advantage difference relative to adversaries.

State of the AIAA Journal

We have been able to reduce our excessive backlog so that papers accepted for publication are delayed for approximately two months rather than the six months that has been the norm for the past few years. Another bit of good news is that the 1986 budget for the *AIAA Journal* entails a net revenue so that we are not running a deficit.

Meanwhile, AIAA has been preparing to launch a *Journal of Thermophysics and Heat Transfer* (JTHT) as a means to widen its influence in this growing field. The potential impact on the *AIAA Journal* is minimal; during the past year only 5% of the papers in the *AIAA Journal* treated thermophysics or heat-transfer topics. The Thermophysics Technical Committee has voted to discontinue using *Progress in Astronautics and Aeronautics* ("The Progress Series") as an outlet for its papers and will channel them, instead, to the new journal. This step will be constructive in an important way. Progress Series papers are not always entered into the national retrieval systems; JTHT papers will be. (I had also discovered a few years ago that AIAA meeting preprints, with few exceptions, were not being entered into retrieval systems such as the Engineering Index. I had that rectified and also continue to advocate that AIAA papers be entered into the mainstream of the archival system for the benefit of all. Certainly a journal is the proper vehicle.) JTHT will be bidding for a major role in a major field. We recommend it to authors and wish to Editor-in-Chief, Alfred Crosbie, and his Associate Editors every success.

Communication

With respect to our relations with authors and reviewers, the following is reprinted for your edification:

To: Universal Science Foundation
Planet Utopia
Galaxy 7,073,216

From: Intergalactic Cultural Antropology Expedition
Sections IV and XXI

Re: Anomalous Behavior Patterns

The expedition to examine subcultures and behavioral patterns on Planet Earth has uncovered an anomaly that

defies explanation by the rational principles and Cartesian logic of our own planet. Sections IV and XXI traveled independently in separate cruise missiles and randomly selected inhabitants for analysis by our noninvasive probes; that is, acoustical eavesdropping and quantitative three-dimensional gossip.

At 3:00 p.m. Earth Time on 4 August, Section IV located an individual with a red face speaking into a telephone at the 10^3 -decibel level. The subject was using arcane linguistic techniques with multisyllable words such as "nincompoop" and "incompetent" occasionally interspersed with four letter words not available in captured dictionaries. This species, which Section IV calls "Author," was complaining bitterly to something called *The Journal* that his manuscript had received no decision in 3 weeks despite (i) it represented better work than had ever appeared in that journal for the last decade and (ii) it was easily the best of his 176 papers, none of which had been treated so shabbily. It was ascertained that this work has taken 2 years to complete; 3 months to write up, and 1.5 months to be criticized by colleagues of the Author before being sent to *The Journal*. At 3:37 p.m., Section IV moved on to study behavior of one horse, two bullfinches, and a garter snake, all of which behaved in a classical and rational Cartesian manner.

At 4:00 p.m. on 4 August, Section XXI located an individual with a red face speaking into a telephone at the 10^{-3} -decibel level using multisyllable words such as "impossible" and "inconceivable" occasionally broken by sighs, groans, and anguished looks at the ceiling. This species, which Section XXI calls "Referee," was apologizing to something called *The Journal* that (i) the manuscript that he had received for review had only recently arrived, having been delayed in the mails; (ii) he had in fact been studying the manuscript for weeks; and (iii) it had come during a period when he was out of the country, writing a grant, lecturing to 300 students, and lying flat on his back in the hospital being fed intravenously. He promised that the manuscript would be put in the mail "tomorrow" and complained that it was unreasonable of *The Journal* to expect a busy Referee such as he was to review a manuscript in less than 3 weeks. Section XXI was unable to obtain a definition of the word "tomorrow" before it moved on to study the viscosity of rush-hour traffic.

The anomaly in the case was not recognized until the two sections received laboratory reports of their remote-sensing DNA-sequencing determinations and optical surface imagery. The former indicated identical DNA sequences for the two species and optical photographs revealed identical clothing and facial characteristics. The sections concluded that it was theoretically astounding, but experimentally conclusive, that both expeditionary units had observed the same individual. No explanation for the subject's behavior could be suggested until Professor X173 discovered that there were two hemispheres of the brain of *Homo sapiens*. We conclude that a single body houses both species, but that the Author species uses the left hemisphere and the Referee species the right hemisphere, and there is no cross-correlative system. Professor X173 predicts that such split personalities will create wars, famines, and two types of Coca-Cola.

— Daniel E. Koshland, Jr. *

Appreciation

In December 1985, a large number of associate editors who have ably served their three-year terms retired. Our ability to maintain high standards while serving both our readers and authors are entirely due to their diligence. They include: Dr. Fred Blottner, Dr. Edward Greitzer, Dr. Terry Holst, Dr. Narendra Khot, Dr. Gino Moretti, Dr. Wen-Huei Jou, Dr. Gary Settles, Dr. Ben Zinn. We also owe many thanks to the stalwart members of the AIAA staff, including Ms. Norma Brennan, Ms. Elaine Camhi, whom we congratulate for being promoted to managing editor of the successful *Aerospace America*, Ms. Faith Florer, who does the day-to-day proofreading, and Ms. Mildred Daniels, who does our composition. We also welcome Bob Inman as Managing Editor of Journal Publications and Ms. Kathy Felix as Senior Editor of the *AIAA Journal*.

Finally, to our reviewers who have spent about 30 man-years reviewing submitted papers during the past year—our appreciation for their diligence and perseverance. Their names are listed below.

George W. Sutton
Editor-in-Chief

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Reviewers for the *AIAA Journal*—1985*

Acharya, M.	Atreya, A.	Bauld, N., Jr.	Bertin, J.	Brown, E.
Acharya, S.	Ayyaswamy, P.	Baumeister, K.	Bettner, J.	Brun, R.
Adrian, R.	Babcock, C.	Beauchamp, P.	Bevilaqua, P.	Bryce, W.
Agarwal, B.	Babra, T.	Beck, J.	Bilanin, A.	Brzustowski, T.
Agarwal, X.	Baca, B.	Becker, H.	Blackwelder, R.	Buckius, R.
Agnone, A.	Back, L.	Beer, J.	Blair, M.	Buckley, R.
Ahuja, K.	Baer, M.	Behrens, H.	Blake, W.	Bushnell, D.
Amiet, R.	Baker, G.	Belegundu, A.	Block, P.	Bushwell, D.
Anders, B.	Baker, T.	Beliveau, J.	Bober, L.	Byron, S.
Anderson, D.	Ballal, D.	Bellagamba, L.	Bodley, C.	Caledonia, G.
Anderson, E.	Ballantyne, A.	Bellan, J.	Boggs, T.	Caledonias, G.
Anderson, W.	Balsa, T.	Belytschko, T.	Bogner, F.	Calia, V.
Andreopoulos, Y.	Baltas, C.	Belytschko, X.	Bohn, M.	Campbell, J.
Armaly, B.	Baltors, C.	Bennett, J.	Bowman, C.	Cantwell, B.
Arndt, R.	Barnett, M.	Benney, D.	Boyd, R.	Caradonna, F.
Arnold, R.	Barnette, D.	Benson, T.	Brackbill, J.	Cargil, A.
Arora, J.	Barnhart, P.	Bergan, P.	Bradshaw, P.	Cargill, A.
Ashgriz, N.	Baron, J.	Berger, S.	Brandon, J.	Carr, L.
Ashurst, W.	Barth, T.	Berke, L.	Brandt, A.	Carta, F.
Astley, R.	Baruch, M.	Bernal, L.	Breidenthal, R.	Carter, J.
Aswani, M.	Basu, P.	Bernard, M.	Briley, W.	Caspar, J.
Atassi, H.	Bathe, K.	Bert, C.	Browand, F.	Cassenti, B.

*This list represents names received through October 1985. We regret any inadvertent omissions.