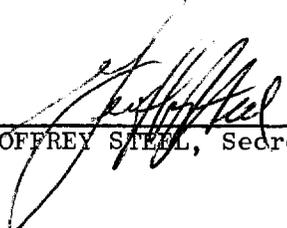


CERTIFICATE

I, GEOFFREY STEEL, hereby certify that I am the Secretary of SRI INTERNATIONAL, a California nonprofit corporation duly organized and existing under the laws of the State of California; that the attached is a true copy of a resolution duly adopted by the Board of Directors of said corporation at a meeting held on June 2, 1983, at which a quorum was present; and that said resolution is in conformity with the Articles of Incorporation and By-Laws of the said corporation and is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of said corporation this 24th day of October, 19 83.



GEOFFREY STEEL, Secretary

(seal)

BOARD RESOLUTION

SIGNATURE AUTHORIZATIONS

RESOLVED, that authority to execute contracts and other documents on behalf of SRI International be, and it hereby is, conferred and distributed as follows:

1. All contracts and agreements to which SRI International is a party, with the single exception of those contracts and agreements which may be drawn directly for or incidental to the purpose of enabling SRI International to borrow money, may be signed by any one of the following:

The Chairman of the Board of Directors
The Vice Chairman of the Board of Directors
President and Chief Executive Officer
Vice President, Finance
Senior Director, Contracts and Material Services
Vice President, Information Systems and Administration
Treasurer

2. All contracts of employment and agreements for personal service in which SRI International is the employer or retainer may be signed by one of the following:

Vice President, Finance
Vice President, Human Resources
Director, Human Resources, Central Staff
Senior Director, Contracts and Material Services

3. All contracts and agreements providing for research services by SRI International to other organizations, groups, or individuals, and all subcontracts incident to SRI's performance of its prime contract commitments may be signed by any one of the following:

Senior Director, Contracts and Material Services
Director, Contract Administration
General Counsel
Director, Contract Services
Vice President, SRI-Washington

4. All purchase orders for the procurement of services, supplies, materiel and equipment may be signed by either one of the following:

Director, Material
Senior Director, Contracts and Material Services

SRI International
June 2, 1983

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5. All public vouchers issued by SRI International in connection with government contracts and agreements for research services may be signed by any one or two (as the document requires) of the following:

Treasurer
Controller
Manager, Accounting Services
Assistant Manager, Accounting Services
Manager, Credit and Collections

6. All corporate certificates which are or may be required upon or in connection with United States Government contracts or upon or in connection with public vouchers or other documents may be executed by any one of the following:

Secretary
Assistant Secretary

SRI International
June 2, 1983
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