

AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA) AND THE BRAZILIAN SPACE AGENCY (AEB) ON TRAINING OF NA AEB MISSION SPECIALIST

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Preamble

The National Aeronautics and Space Administration (NASA) and the Brazilian Space Agency (AEB) (hereinafter "the Parties),

Taking into consideration the Framework Agreement between the Government of the Federative Republic of Brazil and the Government of the United States of America on Cooperation in the Peaceful Uses of Outer Space, signed on March 1, 1996, and entered into force on July 9, 1997;

Recalling the NASA Administrator's letter of October 3, 1997, extending an offer to the AEB President to provide Mission Specialist training for a Brazilian astronaut as part of NASA's 1998 group of astronaut candidates, and the AEB President's letter of acceptance of this offer;

Recalling the Implementing Arrangement Between the Government of the United States of America and the Government of the Federative Republic of Brazil the Design, Development, Operation and Use of Flight Equipment and Payloads for the International Space Station Program which entered into force on the 14th of October, 1997;

Noting the Agreement among the Government of the United States of America, Governments of Member States of the European Agency, the Government of Japan, and the Government of Canada on Cooperation in the Detailed Design, Development, Operation, and Utilization

of the Permanently Manned Civil Space Station of January 29, 1998 (hereinafter referred to as the 1998 Intergovernmental Agreement); and

Recognizing the need to prepare for International Space Station (ISS) operations and in particular for NASA and AEB to gain experience working together on astronaut selection, crew training, and preflight preparation,

Hereby agree to the terms and conditions as set forth in this Mission Specialist Training Agreement.

1.0 GENERAL

NASA will provide to AEB Mission Specialist Training, hereinafter referred to as Training, hereinafter referred to as Training, for an AEB Mission Specialist as set forth in Enclosure 3 to this Agreement, and AEB hereby accepts such Training under the terms and conditions set forth in this Agreement.

Training is defined to be all activities assigned to the AEB Mission Specialist/astronaut candidate by NASA's Astronaut Office at the Johnson Space Center (JSC), including, but not limited to: official travel, collateral duties, proficiency and refresher training, medical examinations, and, in the event of a Shuttle mission flight assignment, flight specific training, mission flight, and post-mission activities.

NASA's Mission Specialist Training program, in which the AEB astronaut candidate will participate, consists of approximately one year of basic training followed by advanced training which includes on-the-job training, collateral duties and, in the event of flight assignment, flight-specific training including all flight and pre- and postflight activities. At the end of the candidacy period, the astronaut candidate's performance is reviewed before he or she is allowed to continue as a Mission Specialist. Typically, 4-5 years elapse from the time an astronaut candidate reports for basic training until the time of a Mission Specialist's first mission.

The Parties agree that the AEB Mission Specialist astronaut candidate will enter NASA's Training program with the same commitment as other astronaut candidates selected by NASA; that is, with the intent of undergoing the full complement of Mission Specialist Training.

NASA will use all reasonable efforts in fulfilling its obligations under this Agreement to the extent consistent with United States law and United States published policy.

In the event that AEB, during the conduct of activities under this Agreement, receives technical data from NASA or its contractors, or users marked with a notice, or otherwise identified, indicating such data is considered proprietary, AEB may use and disclose such data only for the purpose of fulfilling its responsibilities under this Agreement. The written permission of the data owner is required before disclosure, retransfer, or use of such proprietary data for any other purpose.

2.0 DESIGNATION OF REPRESENTATIVES

The Parties designate the following representatives as Agreement Coordinators and Training Coordinators. The Agreement Coordinators will be responsible for coordinating all programmatic and financial matters related to this Agreement. The Training Coordinators will be responsible for coordinating training activities and schedules. The Parties may replace their coordinators by informing the other in writing and identifying a replacement.

NASA Agreement Coordinator:

Neal R. Newman, International Relations Specialist,
Office of External Relations, NASA Headquarters, Washington, D.C. 20546

AEB Agreement Coordinator:

Ambassador Carlos Jose Prazeres Campelo
Director of the Department of Space Cooperation – DCE

NASA Training Coordinator:

Kenneth D. Cockrell, Chief, Astronaut Office,
Johnson Space Center, Houston, TX 77058

AEB Training Coordinator:

Raimundo Nonato Fialho Mussi
Director of Technical and Scientific Development

3.0 SELECTION OF AEB MISSION SPECIALIST ASTRONAUT CANDIDATE

3.1 Selection Criteria

The AEB astronaut candidate will be selected by AEB in accordance with NASA's International Mission Specialist Selection Criteria as set forth in Enclosure 1 to this Agreement.

3.2 Selection Process

Selection of the AEB Mission Specialist astronaut candidate will be conducted by AEB. AEB will conduct inquiries into the background of each of its astronaut applicants to determine the applicants' basic requirements, general suitability and personal suitability criteria. AEB will provide NASA with a written assurance that inquiries have been made into its astronaut candidate's background, and that candidate meets, at a minimum, the criteria set forth in Enclosure 1 to this Agreement. Written assurances must be received and accepted by the NASA Agreement Coordinator before the AEB astronaut candidate can enter training. Within two weeks of receipt of the written assurance, NASA will notify AEB on the acceptability of the candidate.

Prior the beginning of training, AEB will submit its astronaut applicant finalist to the Flight Medicine Clinic at NASA's Johnson Space Center (JSC) to undergo medical evaluations. The medical evaluations will ensure that the finalist meets NASA's medical standards as established in JSC 24834. The medical evaluations will review and/or repeat the results of previous examinations by AEB and may include additional examinations as necessary. Results of the medical evaluations will be reviewed and approved by the NASA Aerospace Medicine Board (AMB) as per NASA Management Instruction (NMI) 1152.59. NASA will promptly notify AEB on the results of the evaluations.

4.0 TRAINING

4.1 General

AEB shall require that its astronaut candidate sign and be bound by the Standards of Conduct Agreement attached as Enclosure 2 to this Agreement and shall ensure that the astronaut candidate/Mission Specialist comply with the Standards of Conduct Agreement. This Standards of Conduct Agreement must be signed and delivered to the NASA Agreement Coordinator before the astronaut candidate reports for basic training at JSC.

Throughout the Training program, as described in this Agreement, the AEB astronaut candidate/Mission Specialist will be based at JSC in Houston, Texas, and will be assigned to the Astronaut Office in the Flight Crew Operations Directorate. All AEB requests to NASA that might affect the AEB astronaut candidate's/Mission Specialist's ability to carry out his/her training or collateral duties must be coordinated with the

NASA Training Coordinator prior to any formal submittal of such requests to NASA. Such requests must be submitted in writing to the NASA Training Coordinator for approval.

NASA will provide general administrative support to AEB's astronaut candidate/Mission Specialist throughout his or her assignment at JSC. General administrative support includes, but is not limited to, office space, desk, telephone, facsimile, and secretarial support. International phone and facsimile costs not directly in support of Training will be the responsibility of AEB.

Travel in support of Training under this Agreement will be provided by NASA. All other travel will be the responsibility of AEB.

The AEB astronaut candidate/Mission Specialist will be required to undergo annual physical exams by JSC's Flight Medicine Clinic. The annual medical examinations will be conducted under NASA Medical Standards JSC 24834, and the results reviewed by the AMB under NMI 1152.59. These exams will determine the Mission Specialist's medical flight status.

Periodically, the NASA Training Coordinator will provide to the AEB Training Coordinator information related to the performance of the AEB astronaut candidate/Mission Specialist while under the supervision of NASA.

Upon request, NASA will facilitate the issuance of appropriate documentation for AEB personnel participating in activities under this Agreement.

4.2 Basic Training (Candidacy Period)

As a part of Training, the AEB astronaut candidate will enter an approximately one year basic training period. NASA's Agreement Coordinator will notify AEB's Agreement Coordinator of the training report date in writing. The astronaut candidate is expected to participate in all aspects of the basic training program, including travel, as specified by NASA. This training will not qualify the AEB astronaut candidate to fly in the front-seat of NASA T-38 aircraft.

Throughout the basic training period, the AEB astronaut candidate will be evaluated by NASA's Chief of the Astronaut Office based on the candidate's overall Training performance. Upon successful completion of the basic training period, the AEB astronaut candidate will, in consultation with AEB, be designated by NASA as a Mission Specialist.

Upon successful completion of the basic training requirements, AEB may choose to suspend Training for its Mission Specialist in the event that he or she is not assigned to a flight crew and return said Mission Specialist to Brazil to support the Brazilian space program. However, a Mission Specialist who suspends Training, except to take approved vacation or emergency leave or to support his/her home agency all for a period of less than one month, must return to active status in the NASA Astronaut Office (actively engaged in Training) for at least 12 months prior to being eligible for flight assignment consideration.

4.3 Advanced Training

After designation as a Mission Specialist, the AEB Mission Specialist will begin an advanced training period that includes on-the-job training and collateral duties. Collateral duties will be assigned by the NASA Training Coordinator identified in Section 2.0, and will continue up to 6 months before the Mission Specialist's flight or until such time as a Mission Specialist is suspended or terminated from Training. The NASA Training Coordinator will consult with the AEB Training Coordinator on an annual basis concerning the collateral duties of the AEB Mission Specialist. The AEB Mission Specialist will also be required to complete proficiency and refresher training.

In the event of flight assignment, as a part of Training, the AEB Mission Specialist will be required to undergo flight-specific training, including advanced Shuttle systems

training, advanced payload training, and integrated team training. The AEB Mission Specialist is expected to operate as an integral part of the crew and will participate in crew activities, including pre- and postflight physicals and other activities as specified by NASA.

5.0 FLIGHT ASSIGNMENTS

If constraints of the Shuttle schedule, mission objectives, and overall operations requirements allow, NASA intends to offer a Space Shuttle flight assignment to the AEB Mission Specialist set forth in Enclosure 3 to this Agreement in the years following successful completion of the basic training program, assuming the Mission Specialist meets all of the criteria for a Space Shuttle flight assignment. Since flight assignment decisions depend upon Shuttle flight rates and mission objectives at the time of assignment, NASA cannot at this time, commit to flying the AEB Mission Specialist on a specific mission; however, NASA shall, to the extent possible, treat the AEB astronaut candidate/Mission Specialist like a U.S. astronaut candidate/Mission Specialist.

Flight assignments of the AEB Mission Specialist will be made by NASA in consultation with AEB. Assignments will be made based on mission and crew teaming requirements. Because of varying mission requirements and schedules, NASA will not precommit the AEB Mission Specialist to flight assignments associated with a particular payload or sponsor. AEB Mission Specialist crew assignment will follow NASA's standard crew assignment practices. NASA commitments to fly a Brazilian astronaut made independent of this Agreement will be factored into any flight assignment consideration.

In order to be eligible for a flight assignment, the AEB Mission Specialist must successfully complete the basic training program as described above and be on active status in the NASA Astronaut Office for at least the previous 12 consecutive months.

6.0 FINANCIAL ARRANGEMENTS

6.1 General

As specified in this Agreement, AEB's financial obligations apply to all AEB astronaut candidate/Mission Specialist Training and medical costs incurred by NASA under this Agreement. This obligation is independent of the astronaut candidate's/Mission Specialist's success in completing any aspect of Training or medical requirements or receiving a flight assignment.

AEB will be solely responsible for all compensation of its astronaut candidate/Mission Specialist, including health insurance and other benefits, throughout all Training under this Agreement. During his/her assignment at JSC, the AEB astronaut candidate/Mission Specialist and his/her dependents will also be eligible for general medical care provided by the NASA Flight Medicine Clinic per NMI 8900.3. NASA will not be responsible for any referral medical costs for the AEB astronaut candidate/Mission Specialist or his/her dependents.

Payments made by AEB as provided in Enclosure 3 will be adjusted according to the actual number of months the AEB Mission Specialist is engaged in Training. Notwithstanding Section 10.0 of this Agreement, any excess payments made by AEB will be refunded.

AEB recognizes that by paying NASA part or all of the costs associated with Training under this Agreement, AEB does not obtain title to or any other legal or equitable right to or interest in any part of the Space Shuttle Program or any other U.S. Government property.

NASA is not obligated under this Agreement to provide Training to the AEB astronaut candidate/Mission Specialist if AEB does not provide sufficient funding as specified under the terms of this Agreement.

NASA and AEB agree that their ability to carry out their obligations under this Agreement is subject to their respective funding procedures.

Should either Party encounter budgetary problems which may affect the activities to be carried out under this Agreement, the Party encountering the problems will notify and consult with the other Party as soon as possible.

6.2 Training Price Determination

For purposes of this Agreement, the price per astronaut for Training Year 1 will be set at a fixed price. The price per astronaut for Training Year 2 and Training Year 3 and Subsequent Years is set at a fixed monthly price and shall remain in effect throughout the AEB Mission Specialist's assignment to the Astronaut Office at JSC (including the period of time when he/she is assigned to a flight crew).

The training prices established under this Agreement are summarized in Enclosure 3 to this Agreement. These prices are quoted in fiscal year (FY) 1998 dollars, and will be escalated at the time of billing to account for inflation. These prices have been established for purposes of this Agreement only and shall not be construed as precedent for other training or services provided by NASA in the future.

NASA shall reserve the right to adjust the prices set forth in Enclosure 3 to this Agreement to reflect any changes in Training content and procedures. NASA will, to the extent practical, provide six months advance written notice to AEB of any such change in training price. Such a change in training price will be reflected by an amendment pursuant to Section 12 of this Agreement.

6.3 Payment Schedule

According to Enclosure 3, AEB agrees to make payments in United States dollars. The payment due dates in Enclosure 3 will be updated as necessary by NASA, in consultation with AEB, through amendments to this Agreement for training years beyond those listed in Enclosure 3. NASA will provide billing approximately 60 days in advance of each payment due date as set forth in Enclosure 3. Each billing will state the billing date, payment due dates, and the total amount of the payment due, including the amount of escalation for those portions of the payment that are escalated to the payment due date. For purposes of escalation, NASA shall use the United States Bureau of Labor Statistics Index, "Business Sector, All Persons: Productivity, Hourly Compensation, Unit Labor Cost, and Prices, Seasonally Adjusted" table, "Compensation Per Hour" column published in the United States Department of Labor, Bureau of Labor Statistics news release entitled, "Productivity and Costs". The escalation rate used for each billing shall be a forecast rate to the payment due date based on published Bureau of Labor Statistics data. The actual rate is published within approximately six months of the original billing date. Each of the previously escalated payments will be subject to a one-time adjustment to reconcile the rates for forecasted escalation with actual escalation to the payment due date. Once the actual rate is available, this adjustment shall be accomplished on the next scheduled billing or at the time of final billing for the Mission Specialist, whichever occurs first. Payments should be sent by wire transfer to the United States Treasury FEDWIRE Deposit System in accordance with instruction available upon request. All payment should reference the number of this Agreement.

Approximately 12 months after the completion or termination of this Agreement, NASA will prepare a final bill in accordance with normal NASA accounting procedures. NASA will either refund to AEB any excess payment, or will bill AEB for any balance due. For

an amount due, AEB's payment due date will be 60 days from the date of the NASA billing.

A late payment fee shall be assessed at the rate one and one-half percent per month of the unpaid scheduled payment, or unpaid portion thereof, for day beyond the payment due date of the scheduled payment, until the unpaid amount is received by NASA.

7.0 ALLOCATION OF RISK

7.1 The objective of this Section is to establish a cross-waiver of liability by the Parties and related entities in the interest of encouraging participation in the exploration, exploitation, and use of outer space. This cross-waiver of liability shall be broadly construed to achieve this objective.

7.2 For the purposes of this Section:

7.2.a. A "Party" is a person or entity that signs this Agreement.

7.2.b. The term "related entity" means:

- (1) a Partner State under the 1998 Intergovernmental Agreement (IGA) and the Memoranda of Understanding referred to in Article 4.2 of the IGA (collectively, the "Space Station Agreements"), including Cooperating Agencies and assisting entities under the Space Station Agreements;
- (2) a contractor or subcontractor of a Party or Partner State at any tier;
- (3) a user or customer of a Party or Partner State at any tier; or
- (4) a contractor or subcontractor of a user or customer of a Party or Partner State at any tier.

This subparagraph may also apply to a State, or an agency or institution of a State, having the same relationship to a Party or Partner State as described in subparagraphs 7.2.b(1) through 7.2.b.(4) above or otherwise engaged in the implementation of Protected Space Operation as defined in subparagraphs 7.2.f. below.

"Contractors" and "subcontractors" include suppliers of any kind.

7.2.c. The term "damage" means:

- (1) bodily injury to, or other impairment of health of, or death of, any person;
- (2) damage to, loss of, or loss of use of any property;
- (3) loss of revenue or profits; or
- (4) other direct or consequential damage.

7.2.d. The term "launch vehicle" means an object (or any part thereof) intended for launch, launched from Earth, or returning to Earth which carries payloads or persons, or both.

7.2.e. The term "payload" means all property to be flown or used on or in a launch vehicle or the ISS.

7.2.f. The term "Protected Space Operations" means all launch vehicle activities, ISS activities, and payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of this Agreement, the Space Station Agreements and implementing arrangements. It includes, but is not limited to:

- (1) research, design, development, test, manufacture, assembly, integration, operation, or use of launch or transfer vehicles, the ISS, or a payload, as well as related support equipment and facilities and services; and
- (2) all activities related to ground support, test, training, simulation, or guidance and control equipment and related facilities or services.

"Protected Space Operations" excludes activities on Earth which are conducted on return from space to develop further a payload's product or process for use other

than for space related activities in implementation of this Agreement or the Space Station Agreements.

- 7.3.a. Each Party agrees to a cross-waiver of liability pursuant to which each Party waives all claims against any of the entities or persons listed in subparagraphs 7.3.1.a(1) through 7.3.a(3) below based on damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property causing the damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The cross-waiver shall apply to any claims for damage, whatever the legal basis for such claims against:
- (1) another Party or Partner State;
 - (2) a related entity of another Party or Partner State;
 - (3) the employees of any of the entities identified in subparagraphs 7.3.a(1) and 7.3.a(2) above.
- 7.3.b. In addition, each Party shall, by contract or otherwise, extend the cross-waiver of liability as set forth in subparagraph 7.3.a above to its related entities by requiring them to:
- (1) waive all claims against the entities or persons identified in subparagraphs 7.3.a(1) through 7.3.a(3) above; and
 - (2) require that their related entities waive all claims against the entities or persons identified in subparagraphs 7.3.a(1) through 7.3.a(3) above.
- 7.3.c. For avoidance of doubt, this cross-waiver of liability includes a cross-waiver of liability arising from the Liability Convention where the person, entity, or property causing the damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.
- 7.3.d. Notwithstanding the other provisions of this Section, this cross-waiver of liability shall not be applicable to:
- (1) claims between a Party and its related entity or between its own related entities;
 - (2) claims made by a natural person, his/her estate, survivors or subrogees (except when a subrogee is a Party) for bodily injury to, or other impairment of health of, or death of such natural person;
 - (3) claims for damage caused by willful misconduct;
 - (4) intellectual property claims;
 - (5) claims for damage resulting from a failure of a Party to extend the cross-waiver of liability to its related entities, pursuant to subparagraph 7.3.b. above.
- 7.3.e. Nothing in this Section shall be construed to create the basis for a claim or suit where none would otherwise exist.

8.0 EXCHANGE OF TECHNICAL DATA AND GOODS

- 8.1 The Parties are obligated to transfer only those technical data and goods necessary to fulfill their respective responsibilities under this Agreement, in accordance with the following provisions;
- (1) In the event a Party finds it necessary to transfer technical data which are proprietary or subject export controls, and for which protection is to be maintained, such technical data shall be provided and marked with a notice to indicate that they shall be used and disclosed by the receiving Party, and its first tier contractors, only for the purposes of fulfilling the receiving Party's responsibilities under the programs implemented by this Agreement. The marked technical data shall not be disclosed or retransferred to any other entity without the prior written permission of the

furnishing Party. The receiving Party agrees to abide by the terms of the notice, and to protect any such marked technical data from unauthorized use and disclosure, and agrees to obtain these same obligations from its first tier contractors and any others authorized to receive the data, prior to the transfer. Nothing in this section requires the Parties to transfer technical data contrary to national laws and regulations relating to export control or control of classified data.

- (2) In the event a Party finds it necessary to transfer goods in carrying out its responsibilities under this Agreement, the following provisions of this paragraph shall apply. In transferring goods which are to be subject to export controls, and for which protection is to be maintained, such goods shall be provided and be specifically identified to indicate that they shall be used by the receiving Party's responsibilities under this Agreement. The identified goods shall not be retransferred to any other entity without prior written permission of the furnishing Party. The receiving Party agrees to protect any such identified goods from unauthorized use, and agrees to obtain this same obligation from its first tier contractors and any others authorized to receive the goods, prior to the transfer. Nothing in this section requires the Parties to transfer goods contrary to national laws and regulations relating to export control or control of classified data.
- (3) All goods, marked proprietary data, and marked or unmarked technical data subject to export control, which is transferred under this Agreement shall be used exclusively for the purposes of the programs implemented by this Agreement.

9.0 APPLICABLE LAW

The Parties hereby designate the United States Federal Law to govern this Agreement for all purposes, including but not limited to determining the validity of this Agreement, the meaning of its provisions, and the rights, obligations and remedies of the Parties. This designation by the Parties is, in part, due to the fact that most of the activities under this Agreement will occur in the United States.

10.0 TERMINATION

Following consultation between the Parties, NASA and AEB each shall have the right to terminate, in whole or in part, its commitment under this Agreement by providing at least 6 months written notice to the Agreement Coordinators identified in Section 2.0 of this Agreement.

In the event of termination by AEB, AEB's termination liability shall be the costs incurred by NASA under this Agreement to the date of termination plus any costs incurred by NASA associated with the termination. If termination is made by AEB after an AEB Mission Specialist is assigned to a flight, AEB's termination liability shall be the costs incurred by NASA under this Agreement to the date of termination plus any costs incurred by NASA associated with the termination, including the cost of any launch delays associated with such termination.

In the event of termination by NASA, AEB's termination liability shall be the costs incurred by NASA under this Agreement to the date of termination.

11.0 SETTLEMENT OF DISPUTES

The Parties agree to consult promptly with each other on all issues involving interpretation or implementation of this Agreement.

In the case of a continuing dispute, such matters will first be referred to the Agreement Coordinators for resolution.

Any matter which has not been settled in accordance with the above paragraph will be referred to the NASA Associate Administrator for Space Flight and AEB's Department of Space Cooperation, or their designees, for resolution.

12.0 DURATION OF AGREEMENT

Apart from any continuing obligations of the Parties under Section 6 under Section 7, this Agreement shall remain in force for a period of five years from the date it enters into force (unless mutually extended by NASA and AEB) or through completion of all activities covered by this Agreement, whichever occurs first. Activities under this Agreement will be considered to have been completed when the astronaut set forth in Enclosure 3 to this Agreement ceases Training without having elected suspension per Section 4.2 this Agreement. This Agreement may be extended or amended by mutual consent and upon written notice between the Parties.

13.0 ENTRY INTO FORCE

This Agreement shall enter into force as of the date of the last signature of the Parties below.

IN WITNESS WHEREOF the Parties have caused their duly authorized representatives to execute two originals of this Agreement in the English language.

FOR THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION:

Angela Phillips Diaz
Director
Human Space Flight and Research Division
Office of External Relations

FOR THE BRAZILIAN SPACE AGENCY:

Dr. Luiz Gylvan Meira Filho
President
Brazilian Space Agency

19 November 1998.

ENCLOSURE 1

INTERNATIONAL MISSION SPECIALIST
SELECTION CRITERIA

**INTERNATIONAL MISSION SPECIALIST
BASIC REQUIREMENTS**

International Mission Specialist astronaut candidates must meet the following minimum basic requirements:

1. Education
Astronaut candidates must possess a Bachelor's or equivalent degree from an accredited institution in engineering, biological science, physical science, or mathematics.
2. Experience
Educational degrees must be followed by at least three years of related, progressively responsible, professional experience. An advanced degree is desirable and may be substituted for part or all of the experience requirement (master degree = 1 year of experience, doctoral degree = 3 years of experience).
3. Medical Standards
Astronaut candidates must pass a NASA Class II space physical. Medical exams will be conducted by NASA at the NASA Johnson Space Center in Houston, Texas.

**INTERNATIONAL MISSION SPECIALIST
GENERAL SUITABILITY REQUIREMENTS**

Prior to final selection of Mission Specialist astronaut candidate applicants, an inquiry must be made by the sponsoring agency into each of its applicant's backgrounds to determine the applicant's general suitability. Sponsoring organizations must provide NASA with a written assurance that an inquiry has been made into each applicant's background, and that the applicant's general suitability. Sponsoring organizations must provide NASA with a written assurance that that an inquiry has been made into each applicant's background, and that the applicant's general suitability has been established based on the standards outlined in this section.

1. Security
It is NASA's policy to facilitate necessary access to the various NASA Centers in support of cooperative or reimbursable programs involving international astronauts, within the limits of NASA management instructions (NMI's) and specific NASA Center regulations. As a minimum, NASA will conduct a name check on each international astronaut candidate prior to accreditation and issuance of a NASA identification badge. The name check will be completed as a part of the normal NASA accreditation process and will consist of a brief review of each astronaut candidate by appropriate government agencies.
In order to facilitate this review, each astronaut candidate's sponsoring organization will be required to provide to NASA general information such as: name, date of birth, place of birth, nationality, relevant national identification number (i.e., social security number or social insurance number), residence, and agency affiliation.
2. General Suitability
The purpose of this subsection is to highlight those standards relative to the determination of astronaut candidate general suitability in support of selection. Sponsoring organizations will make suitability determinations for their own astronaut candidates. This subsection

reflects minimum standards, and each sponsoring organization will utilize their own procedures in conformity with these standards. The term “suitability” means a requirement or requirements for employment having reference to a person’s character, reputation, trustworthiness, and fitness.

2.1 Scope of Suitability

An evaluation of general suitability will ensure that the astronaut candidate applicant will promote the efficiency of the Space Shuttle Program.

2.2 Personnel Data Collection

2.2.1 Basic Biographic Data

In order to be considered for a position as an astronaut candidate, the following information should be available:

- a. General information (i.e., name, date of birth, place of birth, relevant identification number, other names used, other identifying information, telephone numbers and citizenship background);
- b. Present permanent address and previous addresses;
- c. Previous military service, if applicable (i.e., conditions for leaving);
- d. Work experience (previous 10 years; i.e., names and addresses of employers, dates employed, location of employment, job title, number of employees supervised, kind of business, reason for leaving);
- e. Education, as applicable (i.e., month and year of graduation from high school or highest grade completed, name and location of high school, month and year of graduation from college, name and location of college attended, chief undergraduate subjects, chief graduate subjects, name, date and hours of additional training);
- f. Special skills, accomplishments and awards, as applicable (i.e., special qualifications, typing skill, licenses or certifications, language skills, honors);
- g. References (i.e., name, address, telephone number and occupation);
- h. Criminal record, if applicable (i.e., arrest record, charges pending, conviction record, date of offenses, actions taken and law enforcement authority involved);
- i. Involvement with alcohol and dangerous drugs, including marijuana and cocaine, if applicable;
- j. Medical record, if applicable (i.e., nervous breakdowns or mental conditions, dates and name and address of person/hospital/institution providing treatment);
- k. Investigations record, if applicable (i.e., previous investigations conducted: dates and agency, investigations denied/suspended/revoked; dates and agency);
- l. Marital status;
- m. General Information regarding spouse or cohabitant and immediate relatives (i.e., name, other names, date and place of birth, relevant identification number, citizenship data and addresses);
- n. Membership in foreign and domestic organizations, if applicable (i.e., involvement dates, names of organization, offices held, locations of organization).

2.3 Scope of Astronaut Candidate Background Review

The astronaut candidate background review consists of the following activities: (a) searches of appropriate government agencies and other sources as necessary to cover specific areas of the subject’s background, if available; (b) credit search; (c) personal interviews and record searches, which cover specific areas of the subject’s background.

2.4 Suitability Requirements

The general suitability decision process involves an assessment of an astronaut candidate applicant’s past and present conduct in order to predict probable future

actions that may adversely impact the Space Shuttle Program. Any of the following factors may be considered as a basis for disqualification;

- (a) delinquency or misconduct in prior employment;
- (b) criminal, dishonest, infamous, or notoriously disgraceful conduct;
- (c) intentional false statement or fraud in examination or appointment;
- (d) habitual use of intoxicating beverages to excess;
- (e) abuse of narcotics, drugs, or other controlled substances.

Consideration may also be given to the following factors prior to disqualification;

- (a) critical/sensitive nature of the astronaut position;
- (b) nature and seriousness of any misconduct;
- (c) circumstances surrounding such misconduct;
- (d) recency of the misconduct;
- (e) age of person at time of the misconduct;
- (f) contributing social or environmental conditions;
- (g) any reoccurrence of the same misconduct and/or occurrence of similar misconduct;
and
- (h) absence of presence of rehabilitation.

NASA references

- (a) Chapter 731, Subchapter 3-1 of the Federal Personnel Manual; and
- (b) Chapter 731-1, Subchapter S3, Sections S3-1 through S3-8 of the Federal Personnel Manual Supplement.

3. Assurance to NASA

3.1 Letter of Assurance

Sponsoring organizations must provide NASA with a written assurance that an inquiry has been made into each astronaut candidate applicant's background, and that the applicant's general suitability has been established based on the standards outlined above. This letter of assurance must be received by NASA Headquarters prior to each astronaut candidate's training report date.

INTERNATIONAL MISSION SPECIALIST PERSONAL SUITABILITY SELECTION GUIDELINES

The following are examples of characteristics that should be considered in reviewing a Mission Specialist astronaut candidate applicant's personal suitability:

1. Relevant Operational Experience:

Applicants should function effectively in circumstances which require active mastery of situations or conditions. Emphasis is on field experience as opposed to office experience, on cooperative tasks as opposed to individual tasks, and on line functions as opposed to staff functions. Specific positive indicators are:

- participation on or leadership of teams in the performance of difficult operational, engineering, scientific, test, or evaluation tasks;
- experience in hands-on development or experimental research and experience in complex, multi-faceted tasks, or concurrent experience in multiple tasks, either as the lead or as a member of a team.

2. Demonstrated Performance Under Stress

Past performance in demanding and stressful environments requiring quick, decisive action is an important indicator of success in responding to space flight operational contingencies and emergencies. Representative indicators include:

- ability to face physical danger, and ability to respond satisfactorily in emergency conditions;
- ability to make real-time decisions that ensure success of critical scientific or engineering tasks;
- capacity to endure physical and/or mental discomfort;
- tolerance for cyclic and/or prolonged combinations of different stress factors, including monotony, isolation, sensory deprivation, and high workload;
- ability to function under stress in a team situation.

Examples of demonstrated performance under stress could include:

- participation in scientific or exploratory expeditions involving hostile circumstances (Antarctic, deep submergence, airborne observatory, natural, resource exploration);
- military service under severe conditions;
- test and evaluation in hazardous and/or critical environments;
- particularly arduous work experience;
- experience as a private pilot, scuba diver, mountain climber, etc.

3. Ability to Function as a Team Member

An applicant's ability to function as a team member is essential in that an astronaut candidate's success depends on teamwork. Without the capability of being a team player, other attributes in an applicant are unconvincing. Previous success as a team member is the only reliable indicator of this ability.

4. High Moral Integrity

This factor is to a great extent the foundation for team building and, consequently, is closely related to the ability to function as a team member. Assembling highly integrated crews for a demanding, isolated, operational environment requires honesty, openness, fairness, unselfishness, and cooperativeness in each crew member. Applicants should display an underlying respect for others and a desire to do what is good for the team to achieve productivity and a pleasant working and social environment.

5. Responsibility and Potential

These factors are paired because the potential for future growth and achievement, including acceptance of increased responsibility and leadership can be inferred from the responsibilities exercised by applicants in previous positions. An applicant whose record shows growth in the scope of responsibilities, or a repeated pattern of leadership in various activities, will have satisfied this factor.

6. Unique Qualifications or Skills

This factor is included to ensure consideration of those unusual characteristics which may indicate exceptional versatility, or a rare talent, which enhances an already well qualified individual's value.

7. Adaptability/Flexibility

Applicants should demonstrate the capability to learn new tasks quickly and the ability to function effectively in new or rapidly changing surroundings.

8. Motivation Consistent with the Program Mission

Applicants should show a high degree of interest and enthusiasm for the astronaut candidate position. Applicant should have a healthy mixture of desire of success for purposes of personal gratification, as well as an appreciation of the greater importance of the overall program. Balanced competitiveness, initiative, and perseverance are components of healthy motivation.

9. Respect for Equality and Different Cultures, Heritage, and Values

Applicants should exhibit an attitude which demonstrates respect for different genders, cultures, and values. Examples of positive indicators are travel abroad, work experience abroad, experience as a member of a multi-national team, or a demonstrated interest in foreign regions of the world.

10. Travel

Applicants should be willing to travel extensively. Astronaut candidates will occasionally be required to travel to support training, public relations functions and a variety of development and programmatic activities.

11. Well-Developed Communication Skills/Public Speaking

The ability to communicate effectively is not only important to the success of space flight, but is also important in the day-to-day working environment. An additional requirement is the ability to speak publicly to a variety of audiences. Attributes include positive appearance, tact, poise, ability to think on one's feet, good listening skills, effective writing, absence of obvious annoying personal habits, and good manners.

12. Linguistic Ability

Oral and written fluency in the English language is a requirement for all Space Shuttle astronaut candidates. In addition, the ability to communicate effectively in other languages is desirable. Applicants who possess both the capacity and the interest to learn a foreign language are considered competitive in this category.

BRAZILIAN MISSION SPECIALIST STANDARDS OF CONDUCT AGREEMENT

Pursuant to the authority of the National Aeronautics and Space Act of 1958, as amended, the National Aeronautics and Space Administration (NASA) has agreed to permit the undersigned, Marcos Cesar Pontes, an employee of AEB, to train as a Mission Specialist astronaut candidate and as a Mission Specialist after the successful completion of the basic training candidacy period. Under the terms of the National Aeronautics and Space Administration (NASA) and Brazilian Space Agency (AEB) Mission Specialist Training Agreement, the AEB Mission Specialist may then be eligible for a Space Shuttle flight assignment. As part of the overall consideration for this training and any flight opportunity, NASA and the undersigned agree to the following terms and conditions:

1. As long as the undersigned is designated as a Mission Specialist astronaut candidate or a Mission Specialist, the undersigned agrees to refrain from any use of the position of Mission Specialist astronaut candidate or Mission Specialist that is motivated, or has the appearance of being motivated, by the desire for private gain for herself/himself or other persons.
2. If the undersigned acquires information the course of performing Mission Specialist astronaut candidate or Mission Specialist duties that is not generally available to those outside NASA, the undersigned agrees not to use this information to further a private interest or for the special benefit of a business or other entity in which the undersigned has a financial or other interest.
3. The undersigned agrees to limit the use and disclosure of any marked or otherwise identified proprietary data to those purposes necessary for the performance of assigned tasks. In addition, in recognition of the fact that data resulting from the testing and operation of a payload may constitute valuable data and invention rights, the undersigned agrees to the resulting data under protective conditions, limiting its use and disclosure solely to the performance of assigned tasks.

4. The undersigned agrees not to use the Mission Specialist astronaut candidate or Mission Specialist position in any way to coerce, or give the appearance of coercing, another person provide any financial benefit to the undersigned or other persons.
5. The undersigned agrees to avoid any action, whether or not specifically prohibited by law or regulation, which might result in or create the appearance of:
 - (i) Using the Mission Specialist astronaut candidate or Mission Specialist position for the private gain of herself/himself or others;
 - (ii) Giving preferential treatment to any organization or person;
 - (iii) Impeding U.S. Government efficiency or economy;
 - (iv) Affecting adversely the confidence of the public in the integrity of the U.S. Government; or
 - (v) Reflecting unfavorably on NASA or the U.S. Space Program.
6. The undersigned agrees not to directly or indirectly use or allow the use of U.S. Government property of any kind, including property leased to the Government, for other than activities approved by NASA. The undersigned agrees to protect and conserve U.S. Government property, including equipment, supplies, and other property entrusted or issued to the undersigned.
7. The undersigned acknowledges that he is subject to the authority of the Space Shuttle Commander and must conform to his or her order and direction as authorized by 14 C.F.R. 1214.7, entitled "The Authority of the Space Transportation System (STS) Commander".
8. The undersigned agrees to comply with 14 C.F.R. 1214.6, entitled "Mementos Aboard Space Shuttle Flights".
9. The undersigned agrees that NASA Management Instruction 7100.8A, entitled "Protection of Human Research Subjects", is applicable to any research experiments involving human subjects that the undersigned may participate in during the course of activities under this Agreement.
10. The undersigned agrees to comply with all U.S. Government regulations and management issuances related to safety, security and other installations matters that are in effect at the various U.S. Government installations at which he/she functions during the pre-flight, flight and post-flight periods.

This Agreement is effective upon the last signature hereto and will remain in effect for six months following the last Shuttle flight on which the subject Mission Specialist flies, or until the undersigned Mission Specialist astronaut candidate or Mission Specialist terminates, or is terminated from, such capacity, whichever occurs last.

Questions concerning the applicability of any provision of this Agreement, including questions as to whether any proposed activity or actions by a Mission Specialist astronaut candidate or Mission Specialist would appear to violate paragraphs 1, 4 or 5, should be directed to the General Counsel of NASA or his designee.

BY Edward A. Frankle
 General Counsel
 Date 10/1/98

 Marcos Cesar Pontes
 AEB Astronaut
 Date: SEP/15/98

ENCLOSURE 3
TRAINING PRICE
AND PAYMENT SCHEDULE BREAK DOWN

I. TRAINING PRICE DETERMINATION (1998 dollars)

Training Year 1

- 12 Month Period (approximate)
 - Total fixed price of \$561,738
 - includes one pre-selection medical examination
- Fixed price of \$4.300 per each additional medical examination

Training Year 2

- 12 Month Period
- Monthly calculation of \$24,227 per Mission Specialist
- Total fixed price of \$290,724 per year

Training Year 3 and Subsequent Years

- Variable Period
- Monthly calculation of \$23,074
- Total fixed price of \$276,890 per year

II. PAYMENT SCHEDULE BREAKDOWN

A. 1998 Astronaut (Pontes)

Payment Due Dates	Amount Due
<u>Basic Training</u> (1998 Dollars)	
Upon Receipt of Billing	\$ 280,869
12/1/98	\$ 280,869
<u>Advanced Training Year 1</u> (1998 Dollars)	
06/1/99	\$ 145,362
12/1/99	\$ 145,362
<u>Advanced Training Year 2 and Subsequent Years</u> (1998 Dollars)	
06/1/2000	\$ 138,445
12/1/2000	\$ 138,445
06/1/01	\$ 138,445
12/1/01	\$ 138,445
06/1/02	\$ 138,445
12/1/02	\$ 138,445

III. INTEGRATED PAYMENT SCHEDULE

Payment Due Dates	Amount Due
Upon Receipt Billing	\$ 280,869
12/1/1998	\$ 280,869
06/1/1999	\$ 145,362
12/1/1999	\$ 145,362
06/1/2000	\$ 138,445
12/1/2000	\$ 138,445
06/1/01	\$ 138,445
12/1/01	\$ 138,445
06/1/02	\$ 138,445
12/1/02	\$ 138,445