TECHNICAL AGREEMENT BETWEEN

THE GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA AND

THE INTERSTATE AVIATION COMMITTEE FOR THE KA-32A11BC HELICOPTER AND TV3-117VMA ENGINE CERTIFICATION IN CHINA

1. PURPOSE

This Technical Agreement defines the working relationships between the General Administration of Civil Aviation of China (CAAC) and the Interstate Aviation Committee (IAC) that will allow to facilitate and accomplish type certification of the KA-32A11BC and TV3-117VMA engine in China, subsequent design changes approval, and to define individual deliveries procedures and continued airworthiness activities.

This is in line with the Agreement between the Government of the People's Republic of China and the Government of the Russian Federation for promotion of aviation safety related to airworthiness certification and environmental protection, the approval of the imported/exported products and the cooperation in these areas.

2. OBJECTIVES

This Technical Agreement is intended to accomplish the following objectives:

- 2.1. To define working procedures under the respective responsibilities of each Authority:
 - a) for the type validation process.
 - b) for subsequent post type validation activities.
- 2.2. To minimize redundant inspections, tests, demonstrations, evaluations, and approvals.

3. DURATION

This Agreement shall become effective upon approval by CAAC and IAC. It shall continue in effect throughout all phases of the KA-32A11BC helicopter and TV3-117VMA engine validation program by CAAC, including post validation activities, until it is superseded, revised, or terminated by either party or by mutual agreement.

4. COMMUNICATION

- 4.1 The Aircraft Airworthiness Certification Department of CAAC (CAAC-AAD) and the Interstate Aviation Committee Aviation Register (IAC AR) as Aircraft Certification Authority will be responsible for the implementation of this Technical Agreement.
- 4.2 A project manager will be assigned by each Authority to facilitate the implementation of this Technical Agreement. All routine communications related to the activities of this Technical Agreement formally take place between these two project managers. (See Appendix 1 for contact listing).

- 4.3 All communications between CAAC-AAD and IAC AR related to the activities of this Technical Arrangement will be made in the English language.
- 4.4 The applicant will be the primary source for providing the technical support to CAAC-AAD. Any documents provided to CAAC-AAD must have been approved by IAC AR. When requested, IAC AR will provide the necessary assistance and support within its regulatory functions, which will be initiated through and coordinated by the designated project managers of the respective Authority.
- 4.5 Unless otherwise specified, IAC AR shall be copied with all correspondence between the applicant and CAAC-AAD related to the activities of this Technical Agreement in order for IAC AR to support the applicant and CAAC-AAD in the future.

5. TYPE VALIDATION PROCESS

5.1 General

The applicant is responsible for showing and verifying the compliance with the CAAC certification basis and for demonstrating this compliance to both Authorities. Subject to paragraph 5.3, any compliance documents provided to CAAC-AAD shall be approved by IAC AR.

5.2 Certification basis CAAC-AAD

- (1) CCAR 36 R1 (issued on April 15, 2007).
- (2) Initial Certification Basis established by IAC AR and Additional Technical Conditions from CAAC-AAD.

The CAAC-AAD Additional Technical Conditions will include any or all of the following:

- a) Additional Technical Conditions based on differences between IAC AR approved Certification Bases and CCAR29, CCAR 33 requirements in effect at the date application was made to the IAC AR for the IAC type certificate, CAAC airworthiness related operation regulations and differences in applications, policies, and guidance materials of CAAC and IAC;
- b) Special Conditions related to novel or unusual features of the product design not covered in the IAC airworthiness standards;
- Additional Technical Conditions resulting from the evaluation of equivalent safety findings and exemptions granted to the Applicant by IAC AR for domestic certification;
- Mandatory airworthiness actions directed by IAC AR to correct unsafe conditions experienced during the operation of the product prior to the application to CAAC;
- e) Any other requirements specified by CAAC-AAD.

Based on this comparison CAAC-AAD will develop and transmit to "KAMOV", "KLMOV" and IAC AR the CAAC-AAD Certification bases, which will include Initial Certification bases established by IAC AR and Additional Technical Conditions from CAAC-AAD.

5.3 Process of finding compliance to the ATC

For the validation of the KA-32A11BC helicopter and TV3-117VMA engine, CAAC-AAD will define the scope of its involvement taking into account the principle of the paragraph 2.2 of this Agreement.

CAAC-AAD may request additional technical design data, may review the product, and may fly the product for its certification and familiarization purposes. Also, when deemed necessary, the CAAC-AAD may fly, or conduct a detailed review of the product to ensure compliance with the Additional Technical Conditions.

Normally, the compliance findings on the Additional Technical Conditions will be made by IAC AR on behalf of CAAC-AAD. If necessary, CAAC-AAD will provide IAC AR in writing with any interpretative materials or any data regarding the means of compliance pertaining to those Additional Technical Conditions.

For the purpose of finding compliance with the CAAC-AAD Certification basses, CAAC-AAD may present Issue Papers and Action Items.

CAAC-AAD will notify IAC AR, "KLIMOV" and "KAMOV" of the status of each Issue Paper and Action Item and will request formal IAC AR position on the Issue Papers. All Issue Papers and Action Items should be closed before the validation of type certification is completed.

5.4 Final statement

IAC AR will provide, at the end of the process, a formal statement attesting that IAC AR has found compliance with CAAC certification basis.

6.1 Design change approval

IAC AR will verify that design changes affecting the IAC AR type design which have been introduced after CAAC-AAD type validation and embodied on products to be delivered to China, comply with the CAAC-AAD Certification basis using the Information gained during the type validation activities (see paragraph 5 above).

(1) Major changes as defined in CCAR21 subpart 3 (e.g., model changes, product improvements, etc.) to the type design, sought by "KLIMOV" and "KAMOV", as the holders of CAAC Validation of type certificate, may be approved as amendments to the validation of type certificate issued by the CAAC. A certification procedure similar to that described in paragraph 5 shall be applied, but adjusted accounting for the magnitude and complexity of the design change. The CAAC-AAD retains the right to determine, if the proposed change is so substantial that it may require a new CAAC Validation of Type Certificate for the changed type design. In this case, IAC AR and CAAC-AAD will discuss the item to find a mutual agreement.

To assist the CAAC-AAD to determine its level of activity related to a specific design change, the IAC AR should ensure that the CAAC-AAD is notified of each major type design change proposed by the type certificate holders that would affect the airplanes under CAAC airworthiness supervision, including:

- a) the CAAC type Certification basis;
- b) the Type Certificate Data Sheet;
- c) the Aircraft Flight Manual, the Approved Airworthiness Limitations, the Certification Maintenance Requirements (Aircraft Maintenance Schedule and Maintenance Manual);
- d) the Master Minimum Equipment List;
- e) All other specific changes identified by the CAAC.

Based on this information, the CAAC-AAD will determine whether the changes can be considered approved by the CAAC upon IAC AR's approval under its normal procedures.

- (2) The IAC AR shall notify the CAAC-AAD whenever the certification basis of a proposed change included a requirement where the CAAC-AAD may exercise discretion in making the finding. This includes findings of equivalent level of safety, Additional Technical Conditions, and other requirements where the CAAC-AAD will exercise its judgment in making the finding on compliance.
- (3) Minor design changes made by the Holders of validation of type certificate shall be considered approved by the CAAC-AAD upon their approval by the IAC AR under its normal procedures.
- (4) As specified in CCAR 21 for the purpose of complying with CCAR 36, each voluntary change in the type design of an aircraft that may increase the noise levels of that aircraft is "an acoustical change", requiring a further demonstration of compliance.

6.2 Individual product deliveries

For each helicopter and engine to be delivered in China, IAC AR will issue an individual Export Certificate of Airworthiness stating that the product complies with CAAC approved Type design and is in a condition for safe operation.

The Flight Manual for individual helicopter to be exported to China would be IAC AR approved according to the CAAC approved type design.

6.3 Service Bulletins approval

All Service Bulletins issued by "KLIMOV" and "KAMOV" will be IAC AR approved and incorporate a statement to that effect. This statement may be interpreted by a Chinese KA32A11BC operator as approved by CAAC-AAD.

6.4 Repair approval

A repair not listed in the IAC AR approved Maintenance Manual must be approved as a modification to the Type design. Any repair defined in the IAC AR approved Maintenance Manual, may be considered by a Chinese operator as approved by CAAC-AAD.

6.5 Spare parts

IAC AR will ensure its approval of the current list of the products spare parts suppliers to be sent by the applicants to the Chinese KA32A11BC operators.

IAC AR will ensure that spare parts (except for class III Components manufactured to State or Industry standards and delivered according to documents agreed on between the Supplier and the Importer) manufactured at the IAC AR approved production facility and intended for delivery into China will be accompanied with IAC AR Approval Tags (Form 4-96) issued by IAC AR or IAC AR Representatives.

7. CONTINUED AIRWORTHINESS

IAC AR will provide CAAC-AAD with the necessary information on continuing airworthiness of the KA32A11BC and engine. The mandatory continued airworthiness information should be provided by IAC AR in a timely manner.

IAC AR will ensure that the design (production) organization provides the KA32A11BC operator with the necessary information on continued airworthiness of the KA32A11BC and TV3-117VMA engine.

CAAC will ensure that the KA32A11BC operator provides "KAMOV" with information about failures, malfunctions and defects.

When the service experience in China indicates the existence of an unsafe condition related to the design, manufacture or maintenance of the KA32A11BC and TV3-117VMA engine, CAA-AAD will inform IAC AR, "KLIMOV" and "KAMOV". IAC AR shall give an expedient attention to this information, define appropriate corrective actions and inform CAAC-AAD of these actions.

For the General Administration of Civil Aviation of China (CAAC)

Yin Shijun

CAAC-AAD Deputy Director General

Date: 4008-01-14

For the Interstate Aviation Committee

Vladimir Bespalov IAC AR Chairman

Date: 14.01,200%.

Annex 1

The following IAC AR and CAAC-AAD persons are the focal contacts regarding certification and continued airworthiness of the KA-32A11BC helicopter and TV3-117VMA engine:

IAC AR

Mr. Olga Soloveva Adviser tel. (7 495) 953 39 54 fax. (7 495) 953 34 51 e-mail: <u>Priymak@mak.ru</u>

<u>CAAC-AAD</u> <u>Airworthiness Certification Division</u>

Mr. Zhu Xuefeng
Engineer
Tel. (86 10) 6409 2302
Fax. (86 10) 6409 2302
Email: xf zhu@caac.gov.cn