

The Technical Cooperation Program

Australia - Canada - New Zealand - United Kingdom - United States of America

TTCP DOCUMENT

**Policies, Organisation and Procedures
in
The Technical Cooperation Program**

TTCP 201

*(previously known as "Policies, Organisation and Procedures in Non-Atomic Military
Research and Development – POPNAMRAD")*

10 March, 2009

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FOREWORD

This document sets out the policies, organization and procedures (POP) to be used in The Technical Cooperation Program (TTCP). The document is published under the authority of the TTCP Principals, and is normally referred to by its short title, TTCP 201. It is to be used by all elements of TTCP in the execution of both science and technology activities and management activities. Under the authority of the TTCP Principals, TTCP 201 is approved and published on their behalf by the Washington Staff.

This edition of TTCP 201 is intended to provide a complete, consistent reference to the current policies, organization and procedures of TTCP.¹ If any discrepancy is found between this document and the TTCP MOU² as amended, the TTCP MOU (hereafter referred to as 'the MOU') governs.

Readers should inform the Deputies or Secretariat of any concerns or difficulties they have operating with these procedures. Contact details for the Washington Secretariat can be found on the final page of this document. Any suggestions for improvement to this document should be emailed to the AUS Secretariat (see <http://www.dtic.mil/ttcp/> for contact details).

¹ This document is intended to be gender neutral. The use of "he" and "his" is intended only to make the writing less cumbersome than the legally, technically, and politically more correct "he/she" and "his/her."

² "Memorandum of Understanding among the Minister of Defence on behalf of the Department of Defence of Australia, the Department of National Defence of Canada, the New Zealand Defence Force, the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, and the Secretary of Defense on behalf of the Department of Defense of the United States of America Concerning The Technical Cooperation Program (Short Title: TTCP MOU)" signed in Melbourne, Australia, October 1995; the amendment thereto dated 16 October 2000; and the amendment thereto dated 15 October 2005.



Issued under the authority of the
TTCP Principals

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GLOSSARY

TTCP Acronyms & Abbreviations:

AG	Action Group
AUS	Australia
CA	Canada
E&MT	Equipment and Material Transfer
CPP	Cooperative Program Personnel
EC	Executive Chair
GC	Group Counsellor
LRTR	Limited Release Technical Report
NAMRAD	Non-Atomic Military Research and Development
NCW	Network Centric Warfare
NFI	National Foreground Information
NR	National Representative
NZ	New Zealand
PA	Project Arrangement
R&D	Research and Development
S&T	Science and Technology
TP	Technical Panel
TTCP	The Technical Cooperation Program
UK	United Kingdom
US or U.S.	United States of America
WCO	Washington Contact Officer

Definitions:

Action Group	A temporary Level 3 body, set up to investigate a specific technical or systems issue.
Background Information	Information generated outside the scope of a particular TTCP S&T harmonization and alignment effort or TTCP Project.
Classified Information or Material	Official Information or Material that requires protection in the interests of national security and is so designated by the application of a security classification marking.
Contributing Participant	A Participant that contributes resources to a TTCP authorized S&T harmonization and alignment effort or is a signatory to a TTCP PA.
Contract	Any mutually binding legal relationship which obligates a Contractor to furnish supplies or services, and obligates a Participant to pay for them.



Contracting Agency	The entity within the government organization of a Participant, which has authority to enter into, administer, and/or terminate Contracts.
Contractor	Any entity awarded a Contract by a Participant's Contracting Agency.
Contractor Support Personnel	Persons who provide administrative, managerial, scientific, or technical support services to a Participant under a contract with that Participant.
Controlled Unclassified Information	Unclassified Information to which access or distribution limitations have been applied in accordance with applicable national laws or regulations. Whether the Information is provided or generated under the MOU, the Information will be marked to identify its "in confidence" nature. It could include Information which has been declassified, but remains controlled.
Cooperative Program Personnel	Military members or civilian employees of a Participant assigned to work on a TTCP Activity in a country other than their own who perform managerial, engineering, technical, administrative, contracting, logistics, financial, planning or other functions in furtherance of a TTCP Activity.
Defense Purposes	Manufacture or other use in any part of the world by or for the armed forces of any Participant, or any lawful manufacture or other use by or for the governments of the Participants in the interest, promotion, or enforcement of their national security and civil defense, but excluding defense sales or other transfers.
Designated Security Authority (DSA)	The security office designated by national authorities to be responsible for the security aspects of the MOU.
Equipment and Material	Any material, equipment, end item, subsystem, component, special tooling or test equipment used in a TTCP S&T harmonization and alignment effort or TTCP Project.
Executive Chair	Leader of a TTCP Group, responsible to the Principals for Group management and reporting.
Group	A Level 2 body responsible for managing all TTCP activities within a general technology or systems area.
Group Counsellor	A Washington Deputy assigned to a Group, who attends Group meetings in support of the Executive Chair and facilitates Group activities by communicating and explaining the vision, policies, and directives of the Principals.



Information	Knowledge which can be communicated by any means, regardless of form or type including, but not limited to, knowledge of a scientific, technical, business, or financial nature whether or not subject to copyright, patent, or other legal protection.
Invention	Any invention or discovery formulated, made (conceived or first actually reduced to practice) in the course of work performed under a TTCP S&T harmonization and alignment effort, or a TTCP Project.
Jointly Generated Foreground Information	Information jointly generated by the Contributing Participants in the performance of a particular TTCP S&T harmonization and alignment effort or TTCP Project.
National Foreground Information	Information generated solely by one of the Contributing Participants in the performance of a particular S&T harmonization and alignment effort or TTCP Project.
National Technical Representatives	Representatives of the Participants who are specifically Representatives authorized, in accordance with national procedures, to exchange Information and conduct S&T harmonization and alignment efforts under the MOU.
Participant	A signatory party to the TTCP MOU. These are the Department of Defence of Australia, the Department of National Defence of Canada, the New Zealand Defence Force, the Secretary of State for Defence of the United Kingdom of Great Britain and North Ireland, and the Secretary of Defense of the United States of America.
Patent	Legal protection of the right to exclude others from making, using, or selling an invention. The term refers to any and all patents including, but not limited to, patents of implementation, improvement, or addition, petty patents, utility models, appearance design patents, registered designs, and inventor certificates or like statutory protection as well as divisions, reissues, continuations, renewals and extensions of any of these.
Production Information	Designs, drawings, chemical and mathematical equations, specifications, models, manufacturing techniques, software source code, and related information necessary to manufacture or substantially upgrade military materiel and munitions.
Principal	The national authority for TTCP and signatory of the TTCP MOU.
Project Arrangement	A formal multi-national agreement enabling cooperation on a specific project outside the scope of normal TTCP activities.



Science and Technology	Basic research, exploratory development, and advanced development activities that are not part of weapon system specific research and development or production efforts.
Technical Advisor	A formal member of a TTCP Group's management body, appointed to assist the appropriate National Representative by providing additional technical expertise.
Technical Panel	A semi-permanent Level 3 body, responsible for a sub-set of the appropriate Group's work program.
TTCP Activity (capitalized)	A specific TTCP S&T harmonization and alignment effort or TTCP Project.
TTCP Document	Information in any form published and disseminated throughout TTCP in accordance with the procedures contained herein.
TTCP Project (capitalized)	Specific S&T collaborative activity described in a Project Arrangement to the MOU.
TTCP Project Arrangement	An implementing arrangement, added after the MOU enters into effect, which specifically details the provisions of binding collaboration on a specific TTCP Project between two or more Participants.
TTCP Subordinate Element	Any TTCP Technical Panel, Action Group or similar body authorized to conduct TTCP-related S&T activities by the Principals, in accordance with the procedures contained herein.
Third Party	Any person or other entity whose government or agency thereof is not a Participant to the MOU.
Washington Deputy	A Principal's nationally appointed representative, responsible for day-to-day management of TTCP.
Washington Secretariat	Nationally appointed assistants to the Washington Deputies, responsible for the administration of TTCP.
Washington Staff	The collective name for the Washington Deputies and Washington Secretariat.



1. INTRODUCTION

1.1. Historical Background

1.1.1. On 25 October 1957, the President of the United States and the Prime Minister of Great Britain made a Declaration of Common Purpose containing the following:

The arrangements which the nations of the free world have made for collective defense and mutual help are based on the recognition that the concept of national self-sufficiency is now out of date. The countries of the free world are interdependent and only in genuine partnership, by combining their resources and sharing tasks in many fields, can progress and safety be found. For our part we have agreed that our two countries will henceforth act in accordance with this principle.

1.1.2. Immediately afterward, the Canadian Government subscribed to this principle of interdependence and joined in the common effort. The resulting organization was called the Tripartite Technical Cooperation Program.

1.1.3. As a result, an exchange of notes was made which reconstituted the Combined Policy Committee (CPC) which comprised the Foreign and Defense Ministers of the United States, the UK and Canada and also the heads of the atomic energy agencies of the three nations. It was further decided that two Subcommittees of the Combined Policy Committee should be established, one to deal with matters in the atomic field and the other to facilitate cooperation in non-atomic research and development. The latter body, eventually named the Subcommittee on Non-Atomic Military Research and Development (NAMRAD), comprised the heads of defense research and development organizations in the United States, the UK and Canada. Australia joined the NAMRAD Subcommittee in 1965, and New Zealand joined in 1969. These five nations form the current membership, and the organization governed by the NAMRAD Subcommittee is now called The Technical Cooperation Program (TTCP).

1.1.4. From 1958 until 1971, TTCP grew from an original 8 Groups to 17 Groups. These 17 Groups oversaw a total of 57 Working Panels and 43 Working Groups. Based on a conviction that the program had grown too large and that it encompassed some activities of marginal value, a complete review of TTCP was carried out in late 1971. In March 1972 a policy statement was issued which revised the scope, structure, and mode of operation of TTCP to ensure that the



manpower and other resources expended on the program would be limited to areas of high potential for mutual benefit.

1.1.5. In 1994 the TTCP participants were advised of a U.S. legal interpretation requiring all U.S. defense arrangements, including the former TTCP Declaration of Common Purpose, to be formalized by way of a memorandum of understanding (MOU). The required MOU was signed in Australia in October 1995 by the TTCP nations.

1.1.6. At the 1995 NAMRAD meeting (the annual meeting of the TTCP Principals), the Principals asked the Deputies to investigate the structure and operations of TTCP. This study led to the second major revision of the organization, adopted at the NAMRAD meeting held in the UK in October 1996. The major technical elements, known since the early days of the NAMRAD Subcommittee as Subgroups, were renamed Groups. The two Subgroups that had focused on radar and on optoelectronics and infrared technologies were combined into a Sensors Group. A new Group called Joint Systems and Analysis was formed to perform system concept studies, to do analyses of joint operations and land operations, and to conduct operations research studies. With these revisions and the addition of a Land Systems Group at NAMRAD 2005, there are now 11 Groups. The current organization is described in Section 2.

1.1.7. At the 2000 and 2005 NAMRAD meetings, the Principals signed amendments to the TTCP MOU, augmenting and clarifying some aspects of TTCP activities.

1.1.8. At the 2006 NAMRAD meeting, the Principals concluded that the term 'NAMRAD' was outdated as a reference to their annual meeting, and agreed that the annual meeting of the Principals will henceforth be referred to as 'TTCP XX', with 'XX' being the year of the meeting.

1.2. Aims and Means

1.2.1. The central concept that led to the formation of TTCP was contained in the Declaration of Common Purpose. That declaration recognized that no nation possesses the total resources to provide for its own defense research and development needs. The aim of TTCP is therefore to foster cooperation in the science and technology needed for conventional (i.e. non-atomic) national defense, thereby enhancing national defense capabilities and reducing national costs.

1.2.2. During 2006 and 2007, the Principals reviewed their aspirations and expectations for TTCP and concluded that the underlying tenets of the original



Declaration of Common Purpose were as valid now as when they were first espoused. This led the Principals to agree on their following Banner Statement for TTCP:

TTCP will develop, share and integrate emerging defence science and technology to advance the military capabilities of the five member nations. TTCP will provide a trusted, productive and creative network that allows us to develop our best people, advance our best ideas and make full use of our collective opportunities.

1.2.3. Collaboration within TTCP provides a means of informing the participating nations about each other's defense research and development programs so that each national program may be adjusted and planned in cognizance of the efforts of the other nations. This process avoids unnecessary duplication among the national programs, promotes concerted action and joint research to identify and close important gaps in the collective technology base, and provides nations with the best technical information available.

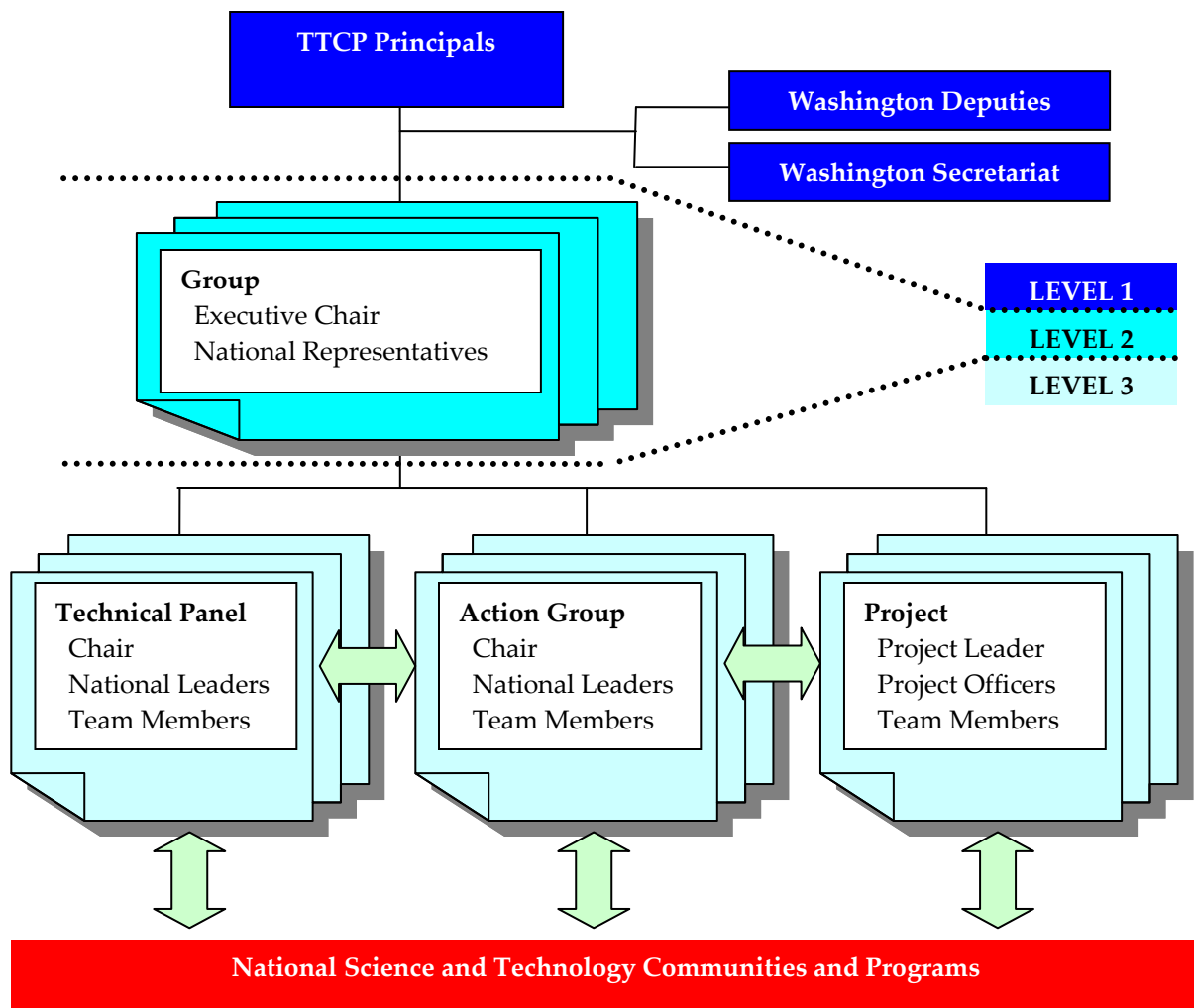
1.2.4. TTCP encompasses basic research, exploratory development, and demonstrations of advanced technology. This scope includes the exploration of alternative concepts prior to development of specific weapon systems. Specific systems may be utilized to gain an understanding of the state of the art and to derive the departure point for future activity. Collaborative research, sharing of data and facilities, joint trials and exercises, and advanced concept technology demonstrations are all accepted forms of cooperation.



2. ORGANIZATION

2.1. Overview

2.1.1. In 1996 the Principals established a three-level structure. Level 1 is the strategic policy level. Level 2 is the program planning and oversight level. Level 3 is the science and technology operational level. These three levels are explained briefly in the following paragraphs, and the duties and operations of the various bodies and officials are discussed more fully in Sections 3 and 4. The diagram below explains the organizational structure.



2.2. Level 1 - Policy

2.2.1. Level 1 comprises the Principals, the Washington Deputies, and the Washington Secretariat. The Principals act jointly to provide the policy, strategic vision and goals, and to give broad direction for achieving science and



technology collaboration. The Principals also determine the Level 2 structure, appoint Level 2 participants, review and approve or redirect the TTCP program, and define management procedures. The Washington Deputies and Secretariat provide a supporting structure to implement the Principals' directives. Section 4.1 provides details.

2.3. Level 2 - Program Planning and Oversight

2.3.1. The Principals have established eleven Groups to perform program planning and oversight of the TTCP cooperative efforts. For convenience, each Group has been given a three-character designator:

Designator	Group Name
AER	Aerospace Systems
C3I	Command, Control, Communications and Information Systems
CBD	Chemical, Biological and Radiological Defence
EWS	Electronic Warfare Systems
HUM	Human Resources and Performance
JSA	Joint Systems and Analysis
LND	Land Systems
MAR	Maritime Systems
MAT	Materials and Processes Technology
SEN	Sensors
WPN	Conventional Weapons Technology

2.3.2. Groups form the semi-permanent infrastructure of TTCP. They are charged with planning and undertaking detailed work in areas of high potential for mutual benefit. Their technical assignment is broad in scope, usually defined by a technology area, system type, or mission area. Section 4.2 provides details.

2.4. Level 3 - Science and Technology Operations

2.4.1. Each Group establishes Level 3 subordinate elements, made up of scientific and technical specialists from the participating nations, to undertake the science and technology activities. The two main types of Level 3 bodies are Technical Panels and Action Groups. A Technical Panel is a standing group that pursues a continuing program; an Action Group is an ad hoc group formed to achieve a specific objective. Both of these bodies can undertake a TTCP Project, which is a specific collaborative S&T activity described in a Project Arrangement. Technical Panels and Action Groups are formed by the Group as needed, and are



approved by the Principals. Most Groups have from 6 to 10 Technical Panels and Action Groups. Section 4.3 provides details.

2.5. National Programs and Personnel

2.5.1. Levels 1 to 3 cover the formal TTCP management positions. However, TTCP is underpinned by a fourth level: the national pools of scientists, engineers, military personnel and others (including representatives of industry and academia), who perform the majority of the actual research work which is then shared through TTCP. Such personnel may attend TTCP meetings, workshops and the like, if required by their appropriate TTCP leadership.

2.6. Pan-TTCP Activities

2.6.1. While management of Level 3 bodies is hierarchical via Groups, significant cross-boundary work should and does occur. Action Groups often span a number of Groups (although there will be a designated lead Group), while Technical Panels commonly have liaisons with other Technical Panels, both within their parent Group and from other Groups. Such interchange is strongly encouraged. For major cross-cutting projects, dedicated pan-TTCP initiatives are sometimes formed.

2.7. Annual Cycle

2.7.1. TTCP operates on an annual cycle, anchored by the yearly meeting of the Principals (typically held around October). In advance of this meeting, each Group will hold its own annual meeting (generally between May and July), while Level 3 bodies meet as required throughout the year. The approximate annual cycle is given below:

Level 1	
April – May	Mid-year Video Conference
August – September	TTCP XX Briefing Book prepared
October – November	TTCP XX Meeting
Level 2	
April – July	Group Annual Meetings
June – July	Annual Reports, Terms of Reference and Award submissions prepared
Level 3	
Year-round	Meetings & general collaborative activities
January – May	TP & AG Annual Reports & Terms of Reference prepared



3. TTCP ACTIVITIES

3.1. Types of Cooperation

3.1.1. TTCP technical cooperation falls into three general types: Information exchange, harmonization and alignment of programs, and major projects requiring a separate covering document called a Project Arrangement or Equipment and Material Transfer. These three types are discussed in turn.

Information Exchange

3.1.2. Much information exchange occurs as an integral part of collaborative research efforts, but it can also be an objective in itself. Information exchange can be undertaken as a preliminary step to a collaborative study or research activity. Although the Principals give lower priority to information exchange as a primary means of collaboration, they understand that robust discussions are often necessary first steps to developing new scientific knowledge and technology.

3.1.3. The MOU requires that information exchange take place on a balanced, reciprocal basis of approximately equivalent value. In achieving this equitable exchange, the information exchange need not occur at one specific time, in one technical field, or in one body. This equitability condition applies to TTCP as a whole rather than to individual elements. Groups and their subordinate elements are authorized to exchange information within the scope defined by their Terms of Reference, but collectively across all the Groups these exchanges must be equitable over a reasonable period of time and must comply with the laws and procedures of the releasing nations; participants should contact their respective Secretariats with any questions or concerns.

Harmonization and Alignment

3.1.4. Harmonization and alignment of programs account for the majority of collaboration under TTCP. Groups review the national programs, identify topics or problems of mutual interest, and harmonize their respective national programs to achieve the greatest mutual benefit. The resulting collaboration can occur by dividing up a large task among the participants, each conducting their own part, and then sharing the results. Another common form is using facilities, test ranges, or equipment of one nation to demonstrate technology developed by several participants and then sharing the results. In another form, the collaboration involves multinational teams of scientists working together on a common problem. Collaboration can also involve combinations of any of these forms. In all of these cases, each Participant funds its own participation and



accepts any risk to its people and equipment. Information exchanged under this effort must comply with the laws and procedures of the releasing nations. Please contact your respective Secretariat for further guidance.

3.1.5. Except for transfers of Equipment and Material (see Section 5.6), the TTCP harmonization and alignment activities are conducted on a best efforts basis. These activities do not establish a binding commitment on the Participants. Harmonization and alignment activities are authorized by the mutual consent of National Representatives, subject to review by the Principals.

Project

3.1.6. The 1995 MOU introduced a new form of cooperation; a TTCP Project conducted under a formal Project Arrangement. A Project Arrangement is a document that includes specific provisions, consistent with the MOU, concerning the objectives, scope of work, sharing of work and other contributions, management structure, security, and any other provisions necessary to conduct a cooperative science and technology project. It carries a higher degree of national commitment than the “best efforts” of program harmonization and alignment activities. Two or more TTCP Participants can conclude a TTCP Project Arrangement. Section 4.3 provides further information.

3.2. Research Activities and Methods

3.2.1. TTCP Groups and their subordinate elements achieve their objectives by:

- a) mutually reviewing each nation’s program to identify areas of common interest and gaps in the existing programs;
- b) suggesting changes to the national programs to avoid duplication, change emphasis, or focus on a promising new technology;
- c) conducting collaborative research and technology development on projects of high mutual interest;
- d) utilizing special capabilities, facilities, personnel, and geographical or environmental regions to greatest advantage;
- e) exchanging Information by means of technical reports, workshops, symposia, visits, and exchange of scientific personnel;
- f) developing databases and pooling data;
- g) transferring materials, equipment, software, and test items; and
- h) establishing common methods and standards for test and for evaluation of experimental results.



4. COMPOSITION AND OPERATION

4.1. Level 1 – Principals, Deputies & Secretariat

4.1.1. The Principals form the governing body of TTCP. Each of the TTCP Participants has one representative on this body. The Principals are the ultimate authorities for TTCP.

TTCP Principals

4.1.2. The TTCP Principals are:

Australia:	Chief Defence Scientist Department of Defence
Canada:	Assistant Deputy Minister (Science and Technology) Department of National Defence
New Zealand:	Director, Defence Technology Agency New Zealand Defence Force
United Kingdom:	Science and Technology Director Ministry of Defence
United States of America:	Deputy Under Secretary of Defense for Science & Technology Department of Defense

4.1.3. The TTCP Principals do not have a permanent head.

4.1.4. The TTCP Principals, acting collectively, have the following responsibilities:

- a) establish all policies, organization, and procedures for the effective operation, direction, and control of TTCP activities;
- b) review the operations of TTCP and direct any changes to the MOU and procedures as needed;
- c) designate those fields of defence research and development that are included in the technical scope of TTCP activities;
- d) approve Group Terms of Reference (See Annex A) and appoint personnel to the Executive Chair positions;
- e) approve the program of work in each of the designated fields and oversee the progress in these programs;



- f) foster maximum cooperation and interchange of Information among the five nations in the designated fields of defense science and technology;
- g) authorize, in accordance with national procedures, new TTCP Project Arrangements and the amendment or termination of existing Project Arrangements; and
- h) nominate authorities to authorize, in accordance with national procedures, arrangements that permit involvement or participation by Contractors or Third Party governments or agencies thereof (see Sections 5.4 – 5.5).

4.1.5. When acting collectively, the TTCP Principals will make decisions unanimously, except with respect to item 4.1.4.g above. Project Arrangements may be initiated, modified or terminated by the unanimous approval of only the participating nations (Contributing Participants).

4.1.6. In addition, each Principal, acting individually, is responsible for appointing a National Representative to each Group in which his nation participates and for formally appointing Executive Chairs that are from his nation. He may also appoint a Washington Deputy. He will authorize his nation's participation in, or withdrawal from, any TTCP activity, including Project Arrangements.

4.1.7. Meetings of the Principals will take place annually and at other times as agreed upon by the Principals. Annual meetings will normally take place in the member nations by rotation, unless otherwise mutually determined. The Principal of the Participant hosting the annual meeting acts as chair of that meeting. At the annual meetings, the Principals will review the status, results and plans of the Groups, and will approve the program to be carried out in each of the fields of science and technology collaboration. The Principals will approve any awards and will provide direction to the Executive Chairs and the Washington Staff.

4.1.8. The minutes of meetings of the Principals will be prepared by the Secretariat in accordance with Annex B. The Secretariat will circulate an approved copy within 6 weeks of the meeting adjournment, after obtaining the agreement of the Principals to the minutes. The Principals will regard the minutes of their meetings as sufficient basis for any required actions.

The Washington Deputies

4.1.9. To facilitate the work of the Principals and the management of the TTCP program, each Principal may appoint a Deputy. Normally located in



Australia and New Zealand:	Counsellor Defence Science Embassy of Australia, Washington, D.C.
Canada:	Counsellor Defence Research and Development Embassy of Canada, Washington, D.C.
United Kingdom:	Counsellor Defence Science and Technology British Embassy, Washington, D.C.
United States of America:	The Office of the Director, Defence Research and Engineering Pentagon, Washington, D.C.

4.1.10. The Washington Deputies have the following general responsibilities:

- a) perform any TTCP management function assigned by the Principals;
- b) respond to all decisions and directives of the Principals and carry out studies and reviews as directed;
- c) ensure that all decisions and directives, especially outcomes of TTCP XX meetings, are communicated to Executive Chairs and monitor the completion of any required actions;
- d) resolve any issues that are brought forward by TTCP Level 2 and Level 3 elements by consulting among the Washington Deputies of the Contributing Participants;
- e) call to the attention of the Principals any major problems or difficulties and refer to the Principals those issues that cannot be resolved by the Washington Deputies; and
- f) review areas of defense S&T in TTCP and all other areas of defense S&T to determine the need for changes to the TTCP program, and recommend needed changes to the Principals.

4.1.11. In addition, the Deputies have the following specific duties:

- a) schedule and make the arrangements for the annual TTCP XX meeting, unless the host nation's Principal decides to manage the arrangements in some other way;
- b) assign one Deputy to act as Group Counsellor to each Group; and
- c) coordinate requests for Third Party Sales or Transfers on behalf of the Participants (see Section 5.7).



4.1.12. When acting collectively, the Washington Deputies will make decisions unanimously except that, in matters of TTCP Projects, Equipment and Material Transfers, Third Party Sales and Transfers, and Cooperative Program Personnel, only the Deputies of the Participants directly involved need be unanimous.

4.1.13. Each Deputy is individually responsible to his Principal(s), and will be supported by a national Secretariat member.

4.1.14. As Group Counsellors, Deputies assist Groups by communicating and interpreting the directives of the Principals, facilitating the resolution of issues by Principals or Deputies, and ensuring a degree of uniformity in procedures across Groups. A Group Counsellor will normally attend their assigned Group meetings and will interact with the Group as necessary. Note that a Group Counsellor does not direct the activities or dictate the positions of a Group; rather, the Group Counsellor assists the Group. He acts as a convenient point of contact at Level 1 but does not inhibit direct communication between the Executive Chair and any of the Principals.

4.1.15. The Deputies will meet as necessary, typically no fewer than four times in any year. Dates and locations of meetings will be determined by agreement among the Deputies. No more than one Deputy may be absent from any Deputies meeting, and he must be represented by his respective Secretariat member.

4.1.16. The minutes of each Deputies meeting will be prepared by the Secretariat in accordance with Annex B. The Deputies will approve the minutes and then will regard the minutes as sufficient basis for any further action.

The Washington Secretariat

4.1.17. Each Deputy will be supported by a staff member to coordinate administrative actions connected with the work of the TTCP Principals and to assist with the staff duties and correspondence of the Deputies. These staff members are known collectively as the Washington Secretariat or the Secretariat. The Washington Secretariat are

Australia:	Staff Officer Defence Science Embassy of Australia, Washington, D.C.
Canada:	Defence Research and Development Officer Embassy of Canada, Washington, D.C.
New Zealand:	New Zealand Member ASIC Management Committee, Arlington, VA



United Kingdom: Defence Science & Technology – Policy & Plans Officer
British Embassy, Washington, D.C.

United States of America: International Technology Programs Officer
Office of the Director, Defense Research & Engineering
Pentagon, Washington, D.C.

4.1.18. The Secretariat have the following specific responsibilities:

- a) perform administrative and staff activities connected with the meetings and activities of the TTCP Principals and Deputies;
- b) prepare the minutes of the meetings of the Principals and the Deputies;
- c) maintain a running record of the status of action items;
- d) maintain a file of current Level 2 Terms of Reference;
- e) ensure that copies of all TTCP publications and other pertinent instructions are available to all Executive Chairs, National Representatives and National Leaders;
- f) maintain an up-to-date list of all upcoming TTCP meetings;
- g) maintain an up-to-date roster of all TTCP elements, officials and team members;
- h) maintain a record of Executive Chair service and expected tour expiration dates. Consideration of this list is a standing requirement of every TTCP XX annual meeting;
- i) manage and maintain the TTCP websites and email systems as appropriate;
- j) assist Groups in administrative, security or other problems;
- k) maintain relations as necessary with standardization organizations; and
- l) perform other administrative duties assigned by the Deputies, such as preparation of Award Certificates, maintaining stocks of TTCP coins etc.

4.1.19. The Secretariat is responsible for compiling, editing and publishing the following TTCP publications:

- a) the Briefing Book for TTCP XX Meetings, including all Group annual reports and achievement award nominations;
- b) the minutes of the TTCP XX meeting, including the Group presentations and Group annual reports;



- c) the TTCP 201 document (this document);
- d) the TTCP 101 introductory guide;
- e) the TTCP Poster; and
- f) any other documents specifically directed by the Principals or Deputies.

4.1.20. The Secretariat will attend TTCP XX meetings and Deputies meetings and will meet as a separate body as necessary to carry out its responsibilities. As recipients of reports and other communications from the Groups, the Secretariat members will maintain a general understanding of the progress and difficulties of the Groups and subordinate elements. The Secretariat will bring to the attention of the Deputies any situation that appears to require support or direction.

Executive Supports

4.1.21. To assist with their duties, the Principals may employ the services of Executive Supports. Such personnel carry no executive authority except as delegated by their superiors. Their role is essentially to shoulder some of the management and administration burden for their superiors.

Washington Contact Officers

4.1.22. As a national decision, any Deputy may appoint Washington Contact Officers (WCOs) to support the Deputy and to support the Executive Chairs of particular Groups. A WCO can act as a Washington point of focus for his national participants. In this role, he can facilitate contacts and expedite correspondence, including the provision of a secure channel for exchange of classified material.

4.1.23. A WCO can act ex-officio as a member of his assigned Groups and their subordinate elements and can attend meetings as specified by national policy. The WCO may represent his National Representative or National Leader at any meeting of the Group or its subordinate elements, when so requested by his Deputy.

4.2. Level 2 – Groups

4.2.1. Each Group is assigned a title and a field of activity defined by the Principals in that Group's Terms of Reference (the approved Terms of Reference for the TTCP Groups are available on the TTCP Portal – see Section 5.9).



Formation and Membership

4.2.2. A Group consists of an executive body (Level 2) and subordinate technical collaboration bodies (Level 3). An Executive Chair, appointed by the Principals, heads the executive body, and each participating nation appoints a National Representative. The Executive Chair represents the best interests of all participating nations collectively while the National Representatives are expected to represent the particular interests of their nations. National Representatives may optionally appoint Technical Advisors to assist them.

Group Executive Chairs

4.2.3. The TTCP Principals appoint Executive Chairs, who report directly to the Principals. The following are basic requirements for an Executive Chair:

- a) that he is a senior official in his nation's science and technology organization;
- b) that he has sufficient international experience to be, and be seen to be, impartial when attending to Group-wide issues;
- c) that he is in a position to promote the work of his Group, both in international and national fora; and
- d) that he is likely to be available to serve as Executive Chair for at least three years.

4.2.4. The Executive Chair must understand the scientific and technological state-of-the-art and the national defense needs within his field, and he must provide the vision and leadership to formulate a highly effective, cooperative program in science and technology. The Executive Chair will provide coordination and continuity to all Group activities, particularly between meetings.

4.2.5. The Executive Chair has the following specific responsibilities:

- a) preside over Group meetings and the formulation of the technical program of the Group;
- b) provide management oversight for all subordinate Technical Panels, Action Groups and Projects, act as the executive point of contact for these subordinate elements, approve and maintain a file of their current Terms of Reference;
- c) ensure that subordinate elements are fully informed of the Principals' directives and the relevant TTCP policies and procedures;



- d) inform the National Representatives and the subordinate element Chairs and Project Leaders of all correspondence, tasking and guidance received from the Principals and Deputies;
- e) prepare and submit the Group Executive Summary and Annual Report to the Group Counsellor by 31st July each year (see Annex C);
- f) brief the Principals, at the annual TTCP XX meeting, on the accomplishments of the Group, present the proposed program, and receive direction and guidance (see Annex D);
- g) submit any Achievement Award nominations to the Group Counsellor by 31st July each year (see Annex E);
- h) notify the Group Counsellor of all Group Level 2 activities, and details of any seminars or workshops to be sponsored by the Group or its subordinate elements, as they are planned;
- i) appoint Chairs to lead Technical Panels and Action Groups as required;
- j) ensure that participation by entities not normally included in TTCP efforts has the required prior written approvals (see Sections 5.4 – 5.5);
- k) maintain communications with other TTCP Groups and coordinate cooperative activities to avoid duplication and to achieve mutual benefit;
- l) oversee the Group element of the TTCP Portal (see Section 5.9); and
- m) maintain a database of Group publications and issue Group publication numbers for both Level 2 and Level 3 elements.

4.2.6. Whenever feasible, the responsibility of providing Executive Chairs should be borne equitably across the Participants. The Principal of the Participant providing a new Executive Chair will make the formal written appointment. An Executive Chair will normally serve for a period of 3 years, extendable up to 5 years. The changeovers will normally occur at TTCP XX meetings. An Executive Chair can also serve concurrently as a National Representative.

Group National Representatives

4.2.7. The TTCP Principals appoint a National Representative to each Group in which his nation participates.

4.2.8. To assist with the planning and managing of the Group program, National Representatives bring to the Group their own nation's visions of priorities and opportunities within their field.



4.2.9. The National Representatives have the following specific responsibilities:

- a) represent his Participant in the formulation of the technical program of the Group;
- b) approve Equipment and Material Transfers for his Participant, as permitted by national procedures (see Section 5.6);
- c) be responsible for the distribution, to appropriate persons within his nation, of all information received from the other Participants including correspondence and TTCP publications. In doing this, the National Representative will observe all security and proprietary restrictions placed on information by the other nations;
- d) ensure (collectively) that TTCP Documents (DOC) and unclassified Technical Reports (TR) are placed on the appropriate Group Folder on the TTCP Portal, as well as (individually) ensure they are sent to the national repositories along with classified TRs and Limited Release Technical Reports (LRTR);
- e) ensure that all actions accepted by his Participant on behalf of the Group are properly carried out;
- f) make the arrangements for Group meetings or other activities for which his Participant is host;
- g) provide information and assistance to the Executive Chair as required, drawing the attention of the Executive Chair to any difficulties encountered in the operation of the Group; and
- h) as a Group representative, confer with Technical Panels and Action Groups meeting within the National Representative's country to ensure that the Principals' directives and TTCP policies and procedures are understood, and to receive advice on subordinate element issues and activities.

Group Technical Advisors

4.2.10. Technical Advisors, appointed by National Representatives, can be included in the Group to bolster Level 2 technical expertise. Their appointment is a national decision and they are generally used when the National Representative does not have visibility of the whole national capability. This is most common in the US, where they allow a number of Defense agencies to be represented.



Executive Assistants

4.2.11. To assist with their duties, Executive Chairs and National Representatives may employ the services of Executive Assistants. Such personnel carry no executive authority except as delegated by their superiors. Their role is essentially to shoulder some of the management and administration burden for their superiors.

General Procedures of a Group

4.2.12. Within their Terms of Reference, Groups will conduct meetings, exchanges, research and other activities as necessary to achieve their objectives as stated in their Terms of Reference.

4.2.13. In providing suitable oversight of its Level 3 elements, a Group should pay particular attention to areas where activities overlap with other Groups, collaborating and communicating with these other Groups as necessary. The Groups are expected to regularly review each Technical Panel's mandate and progress, to decide on the future of the Panel.

4.2.14. All new initiatives, such as new TPs, AGs or Projects, will be reported to the Principals at their annual meeting. Work on new initiatives can start before this meeting; however, Projects do not have the national commitment of the Project Arrangement until approved by the Principals or the appropriate authorities of the Contributing Participants. The Principals may redirect any initiative as they see necessary. The Group should approve Terms of Reference for its TPs and AGs in accordance with Appendix 2 to Annex A.

Group Meetings

4.2.15. Every Group will review Group activities and will plan the way ahead at least once each year. This management function is normally performed at an annual meeting of the Group executives (i.e. the Executive Chair and National Representatives). This function should be completed by 31 July about 3 months before the annual TTCP XX meeting.

4.2.16. The dates, locations and agenda for Group meetings will be determined by mutual agreement between the Executive Chair and National Representatives. Group meetings need not necessarily be held in each nation in turn. The main criterion for location is suitability for expeditious completion of business.

4.2.17. Additional Group meetings may be held if the Group executives determine that such meetings are necessary to meet the Group's objectives.



Where possible, video conferencing should be used to minimize the number of in-person meetings.

4.2.18. Detailed arrangements for Group meetings will be made by the host nation under the direction of its National Representative. The TTCP Principals have established that, aside from exceptional circumstances, business meetings for all TTCP elements should be limited to five working days including any local visits.

4.2.19. For Group meetings, each National Representative is responsible for prior national coordination of their nation's positions on all items to be discussed; proper security releases in advance for all Information to be disclosed; timely visit clearance requests for meeting attendees; and, in consultation with other National Representatives, planning for the meeting.

4.2.20. The minutes of the Group meeting will be prepared by the host Participant in accordance with Annex B. The National Representative of the host Participant is responsible for publishing the minutes after obtaining approvals from the Executive Chair and all National Representatives. The Executive Chair will send copies to the Group Counsellor and the relevant Washington Contact Officers.

Executive Summary and Group Annual Report

4.2.21. The Executive Chair of each Group will prepare an Executive Summary and Annual Report consistent with the instructions in Annex C, and provide them to the Group Counsellor by 31st July each year, irrespective of when the Group annual meeting is held.

EC Briefing

4.2.22. The Executive Chair of each Group will brief the Principals at the annual TTCP XX meeting, consistent with the instructions in Annex D.

Strategic Advisory Group (SAG)

4.2.23. The Group Executive Chairs and Washington Staff form the membership of the SAG and gathers as part of the annual TTCP XX meetings.

4.2.24. The role of the SAG is to provide high level strategic advice to the Principals on any issues of relevance that can inform, affect or determine TTCP activities or functions. To this end, the Group Counsellors will seek prioritised topic nominations from the Groups at their annual meetings. The collection of topics will be collated by the Washington Staff, aggregated across similar subject



matter and a prioritised list of topics will be provided to the Principals as a recommendation for the SAG agenda.

4.2.25. At the annual TTCP XX meeting, the Principals may raise further strategic topics for SAG consideration. The Washington Deputies and Secretariat will collect and confirm strategic issues with the Principals for inclusion in the SAG agenda.

Achievement Awards

4.2.26. TTCP Achievement Awards are given to recognise outstanding achievements in collaborative defense research undertaken in TTCP. These awards are prestigious and approval of awards is an activity of the annual TTCP XX meeting. The awards are quality based and there is no cap on either the number of awards that can be approved in any year, or the number that can be submitted by a Group.

4.2.27. A Group should develop its own procedure for selecting and preparing nominations. This would normally involve its Level 3 elements. However, it must be emphasized that the nominations are from the Group, and the Group is responsible for the quality of the nominations and for upholding the principle that only truly outstanding work is rewarded. Therefore, the nomination process should culminate with the Executive Chair and all of the National Representatives of the Group agreeing that each nomination is warranted.

4.2.28. Two categories of Achievement Award have been established: **Team Awards** in recognition of exceptional team efforts, and **Personal Awards** in recognition of exceptionally meritorious service to TTCP by an individual.

4.2.29. The Executive Chair of each Group will submit any Award nominations to the Group Counsellor by 31st July each year consistent with the instructions in Annex E. Incomplete and late submissions will not be considered.

4.2.30. All award nominations will be considered by the Principals at a separate programmed session of TTCP XX. Guidance on presentation format of Group awards is provided at Appendix 3 to Annex E.

4.2.31. The Participants are encouraged to enhance the prestige of the Achievement Awards by involving government ministers or other high-level officials in making the Award presentations to recipients. Participants may also wish to take advantage of such opportunities to involve their military executives and the media and so publicize TTCP and the achievements of their own organizations concurrently.



Letters of Commendation

4.2.32. It is recognised that occasionally activities will require special effort on the part of individuals or teams to achieve TTCP objectives. While these efforts may not be sufficient to attract an official TTCP achievement award nomination, it may be appropriate in some cases to acknowledge such efforts. The Principals are content for such acknowledgments to be made by Groups, provided it is clear that this is not a TTCP Achievement Award. It is for the Groups to assess the merits of each case and to produce the acknowledgment. A letter of appreciation is appropriate in these circumstances. A list of the acknowledgments made each year shall be included in the Group's annual meeting minutes.

4.2.33. Equally, from time to time, there may be an individual who makes an extraordinary contribution to TTCP but not within the context of a single project/activity or to the degree that would merit a formal TTCP Award. In this case, a letter of appreciation is again appropriate. For a person serving at Level 2, the letter should be signed by the national Principal or all of the Principals. For a person serving at Level 3, the letter should be signed by the Group Executive Chair or the National Representative. Such letters of appreciation are not to be considered Achievement Awards, but should be used at the discretion of the Group to acknowledge notable accomplishments.

Group Health Report

4.2.34. Each Group is to prepare a Health Report in accordance with Appendix 4 to Annex C and submit it as part of their Annual Report; the table alone from the Health Report will be provided in the Executive Summary (see Annex C). The report should be based on efforts undertaken in the last year, taking into consideration ongoing efforts in previous years that have taken time to bear results. Technical Panels and Action Groups can also self-assess performance based on the criteria provided at Appendix 4 to Annex C and present this at the annual Group meeting. The overall Group Health report will need to be determined by the EC and Group Counsellor at the conclusion of the Group meeting.

Maintaining the TTCP Roster

4.2.35. All Groups will support the Washington Secretariat in maintaining an up to date TTCP Roster. As the TTCP Portal (see Section 5.9) has been adopted as the definitive source for Roster information, this includes keeping current the structure, names and details of all elements and personnel via the Portal. The



Group should regularly review the accuracy of their membership details according to the Portal.

Symposia and Workshops

4.2.36. Symposia or workshops can be held under TTCP auspices. However, such events must lead to an explicit outcome that is related to the Group's objectives. When a Group decides to sponsor such a gathering, the Executive Chair or hosting National Representative will inform their Group Counsellor so that the notification can be broadly disseminated throughout TTCP. National security procedures and other national laws must be observed in conducting the activity and producing and distributing the reports. The proceedings, major discussions and recommendations of the symposium or workshop must be fully documented. The reports will bear TTCP and national security markings as appropriate (see Section 5.11).

4.3. Level 3 – Technical Panels, Action Groups and Projects

4.3.1. Technical Panels, Action Groups and Projects are established to undertake work in specific areas within the Group's Terms of Reference. Current listings of Level 3 elements and their members can be found in the Reference section of the TTCP Portal.

Technical Panels

4.3.2. A Technical Panel is a standing group that conducts a series of tasks in an area of continuing interest and importance. Typically, a Technical Panel will have from three to six technical assignments and several studies in progress at any one time. The Technical Panel activities include information exchange and collaborative research within their Terms of Reference. Technical Panels normally operate for a number of years.

4.3.3. For a Technical Panel, a National Leader and Team Members are appointed by each Participant, through that Participant's Group National Representative. The National Representative must notify the Executive Chair, the other National Representatives and the Secretariat of the appointments. National representation is at the discretion of each Participant, but it should be restricted to technical personnel capable of providing a positive input to the technical activities. The National Leader directs or negotiates work that will be done in his country as part of the collaborative research.

4.3.4. The Executive Chair of the parent Group will appoint a Chair to lead the Technical Panel, normally from the National Leaders or Team Members. A



Technical Panel Chair normally is expected to serve for at least 3 years, but no more than 5. Groups should undertake succession planning for the leadership positions in their TPs.

4.3.5. The Group assigns a title and approves Terms of Reference for each Technical Panel. Appendix 2 to Annex A gives an example Terms of Reference for a Technical Panel. The Executive Chair will maintain a compilation of these Terms of Reference and will copy any new or changed Terms of Reference to the Group Counsellor for information. Terms of Reference should be revised as necessary to reflect the current assignments directed by the parent Group. Technical Panels have a standing task to identify and report to the Group on the impact of emerging technologies in defense R&D.

4.3.6. Normally, each Technical Panel will meet once a year to facilitate communications, review progress, share results and plan future activities. Each National Leader must satisfy himself that the agenda justifies having a meeting. The TTCP Principals have established that, aside from exceptional circumstances, business meetings for all TTCP elements should be limited to five working days including any local visits.

4.3.7. Minutes from the meeting should be prepared in accordance with Annex B. The Technical Panel Chair will submit a copy of the minutes to the Group Executive Chair, the National Representatives, the Group Counsellor and Technical Advisors.

4.3.8. The progress of Technical Panels is reviewed at each Group annual meeting. At this meeting, either the Technical Panel Chair or the National Leader from the nation hosting the meeting reports status, results and problems for all of the assigned tasks and seeks the approval of the Group for new activities and projects.

Action Groups

4.3.9. An Action Group is an ad hoc group established to undertake a study or research activity of a specific, high-priority problem that might cross or link the programs of two or more Technical Panels from any Group, or be outside the current Terms of Reference of any established Technical Panel. Action Groups are often exploratory, focusing Group or cross-Group technical activity on specific challenges or opportunities. All of the participating Groups should contribute to defining the task, assessing its worth and conducting the activity. For efficiency in management, cross-Group Action Groups should be established as an Action Group of one of the participating Groups, but provide all related Groups with status information, needs for support and results. The parent Group



4.3.10. Action Groups have limited membership and a specific objective. They are disbanded when their objective is reached.

4.3.11. As with Technical Panels, a National Leader and Team Members are appointed by each Participant through the initiative of that Participant's National Representative, who must notify the Executive Chair, the other National Representatives and the Secretariat. National representation is at the discretion of each Participant, but it should be restricted to technical personnel capable of providing a positive input to the work of the Action Group.

4.3.12. The Executive Chair of the Group appoints a Chair to lead the Action Group, normally from the National Leaders and Team Members. An Action Group Chair normally is expected to serve until the activities of the Action Group are completed.

4.3.13. The Group assigns a title and approves Terms of Reference for each Action Group. The Executive Chair will maintain a compilation of these Terms of Reference and will copy any new or changed Terms of Reference to the Group Counsellor for information. Terms of Reference should be revised as necessary to reflect the current assignments directed by the parent Group.

4.3.14. The progress of Action Groups is reviewed at each Group annual meeting. At this meeting, either the Action Group Chair or the National Leader from the nation hosting the meeting reports status, results and problems for all of the assigned tasks and seeks the approval of the Group for new activities.

TTCP Projects

4.3.15. A TTCP Project is a specific R&D collaborative activity operating under the provisions of a TTCP Project Arrangement. A Project Arrangement is a document that specifies the objectives and scope of a project, the work sharing and financial arrangements, the Equipment and Material Transfer, the management structure, the security and any other provisions of a collaborative project. Each participating nation (the Contributing Participants) must authorize the terms and conditions of the Project Arrangement, which is legally binding under international law.

4.3.16. Project Arrangements will be used where the level of the Participants' interdependence and the resource commitment is such that the withdrawal of resources or the failure of any Contributing Participant to perform would jeopardize the success of the endeavour. Generally a Project Arrangement is



required where funds are to change hands between Participating nations, where one Contributing nation will be contracting on behalf of one or more of the others, or where two or more Contributing Participants want to develop something together. A Project Arrangement might also be needed when a project depends on the scheduling of critical resources such as ships or test facilities and when a project is so complex that the discipline and commitment of a Project Arrangement are needed to assure success. Such arrangements require time (typically 9 to 18 months - see flow-chart of the process at Annex F) and effort to develop and obtain the necessary approvals.

4.3.17. A guide to preparing a Project Arrangement is given at Annex G. This process is explained in more detail on the TTCP Portal³. A key point to note is that if the Project Arrangement is to involve the US, then the relevant US service International Programs Office (IPO) will take the lead in generating and negotiating the Project Arrangement. Please contact your respective Secretariat for guidance at the earliest stages of Project Arrangement consideration.

4.3.18. Project Arrangements will be registered and recorded by the Secretariat. Each Project Arrangement will be assigned a serial number reflecting the sequential approval designation, the year of the approval and the subordinate element to which it relates. For example, the serial number PA-1/06/MAT would be assigned to the first Project Arrangement of MAT Group, signed in the calendar year 2006.

4.3.19. A Project Arrangement allows the management structure to be tailored to the needs of the Project. The normal practice will be that the Executive Chair and National Representatives (of the Contributing Participants) of the parent Group will serve as the Steering Committee for the Project. Each Contributing Participant will appoint a representative called a Project Officer who will be responsible for achieving the results or providing the resources for which his Participant is committing. The Contributing Participants will collectively agree on a Project Leader⁴ who will oversee the entire Project and report to the Group

³ Further guidance can be found in the document '*TTCP Project Arrangements which Involve the US*', on the Portal at https://www.ttcp.drdc-rddc.gc.ca/ev_en.php?ID=2696_201&ID2=DO_TOPIC

⁴ The National Representatives of the parent Group will consult with national authorities as necessary to reach agreement on the Participant and the person to assume the position of Project Leader.



Executive Chair. This management structure, or another structure if considered more appropriate, will be specified in the Project Arrangement. A Project does not need Terms of Reference because it has the more inclusive Project Arrangement.

4.3.20. If a Project involves the transfer of Classified Information or Material, the Project Officer will prepare a security instruction and classification guide within three months of approval of the Project Arrangement (as required by Section XI of the TTCP MOU). This document will describe the methods by which TTCP Project Information and material will be classified, marked, used, transmitted and safeguarded in accordance with the national security policies of the Contributing Participants. The document will be forwarded to the Designated Security Authorities (DSAs) of the Contributing Participants and must be approved by the appropriate DSAs before transfer of any Classified or Controlled Unclassified Information.

General Procedures and Responsibilities for Level 3 Elements

4.3.21. The Chair and National Leaders (or, for a Project, the Project Leader and Project Officers) constitute the management body of the Level 3 element. They must work together to plan, manage, execute and report their activities to accomplish the tasks and achieve the objectives specified in their Terms of Reference or Project Arrangement.

4.3.22. Within their Terms of Reference, TPs, AGs and Projects will conduct meetings, exchanges, research and other activities as necessary to achieve their objectives as stated in their Terms of Reference or Project Arrangement.

4.3.23. Each National Leader (or Project Officer) will be responsible for having the proper people and other resources assigned, and for overseeing, managing and/or conducting his Participant's portion of these activities. He will be responsible for coordination of national positions on all items to be discussed within the group and for obtaining security releases for all classified Information and Material to be disclosed to others. He will be responsible for circulating to the appropriate scientists and engineers in his nation all Information received from other nations pertaining to the work of the group. He will make detailed arrangements for group meetings held in his nation and will be responsible for producing the minutes of those meetings (see Annex B). He will ensure that his National Representative of the parent Group is informed of all changes of membership and all significant technical accomplishments and problems.



4.3.24. TP, AG and PA Team Members are appointed by and used to complement the National Leaders and Project Officers. They generally bring specific technical expertise to the team.

Level 3 Oversight and Reporting

4.3.25. The parent Group reviews Technical Panels, Action Groups and Projects at least once each year, usually at the Group annual meeting. While it is each Group's business to specify any documentation it requires from its Level 3 elements to facilitate its oversight of those elements, suggested templates for Task Proposal Summaries and Task Outcome Reports are given in Annex H. The Level 3 element would prepare these papers.

4.3.26. The Task Outcome Report is a summary report separate from the technical reports that are prepared to fully document the task and the results. The procedures and requirements for format, marking, and distribution of these technical reports are given in Section 5.11.

4.3.27. While it is not mandated, it is normal practise for each Group to request an annual report from their TPs and AGs. The aims of such a report are to allow the Group to better monitor and direct the work of the TP or AG and to assist the Group in preparing their own annual report. A suggested format for a Level 3 annual report is given in Annex I. However, it is up to the Group to direct whether their TPs and AGs should produce such a report and, if so, how and when.



5. GENERAL PROCEDURES

5.1. Personnel Induction Process

5.1.1. Newcomers to TTCP should complete the following actions on joining the organisation:

- a) Register for the TTCP secure **Webmail** (using the registration form at <https://ttcp.dstl.gov.uk/horde/>).
- b) Register for the TTCP secure **Portal** (using the registration form at <https://www.ttcp.drdc-rddc.gc.ca/>).
- c) If access to classified (up to Secret-level) email communications with TTCP colleagues is required, apply for a **Griffin** account via national channels (TTCP Secretariat members can provide further details on how to do this).
- d) Read the **TTCP 101 – Beginner's Guide** (available in the Reference sections of the TTCP Public Website (<http://www.dtic.mil/ttcp/>) and the TTCP Portal).
- e) Obtain a copy of the latest TTCP **Organisational Poster** (available in the Reference section of the TTCP Portal).
- f) Obtain a copy of the appropriate Group and Technical Panel / Action Group **Terms of Reference** (available from the appropriate Group / TP / AG management and / or the Group area of the TTCP Portal).

5.1.2. This induction process is available as a stand-alone document in the Reference sections of the TTCP Website and Portal. If in any doubt about any aspect of this process, the respective national TTCP Secretariat member should be contacted.

5.2. Activities of Public Media Interest

5.2.1. TTCP activities include conducting a range of test and trials as part of its everyday business. Some risk of injury to personnel, property or the environment will exist to a greater or lesser extent in every experiment undertaken. The Principals expect that all trials associated with TTCP will be managed in a professional manner by the activity Leader and that this will include careful management of risks to personnel (including the public), property and the environment (including wildlife). Careful safety assessment and management by the activity Leader is expected to mitigate these risks to a level acceptable to the



host nation. Nevertheless, it cannot be guaranteed that an incident will not occur.

5.2.2. In addition, TTCP conducts activities that are of a sensitive nature to one or more of the TTCP nations and not necessarily the participant nations of the activity.

5.2.3. It is for reasons such as these that it is important to have in place, prior to such events, an appropriate media plan that is agreed by the host Participant for responding to an incident and that complies with the national procedures of all nations for dealing with the media. When a situation occurs, the Leader on the scene must know who will be the interface with the media on behalf of the TTCP Participants. Activity Leaders will confirm with their Group Executive Chair and National Representative the points of contact for TTCP media matters.

5.2.4. During an event of media interest, the Group Counsellor will serve as the TTCP Level 1 point of contact for that Group to ensure that the other Deputies and, through them, the Principals are kept informed. Note, however, that the Deputies are not the national points of contact for media releases.

5.2.5. Responsibilities and duties within a Group will be planned and executed by the Group, and could be as follows:

- a) The Executive Chair will ensure that all Technical Panel/Action Group Chairs and Project Leaders in his Group know the contact details of who must be notified immediately of any media interest situation. The National Representative of each Participant will validate the completeness of this information, possibly tailoring it to meet local requirements.
- b) The Technical Panel/Action Group Chair/Project Leader will ensure that the lead official in direct control of an activity on-site (e.g. Chief Scientist or Field Test Manager) has this information. It is expected that this information will be included in a document such as the Test Planning Document, Risk Management Document or similar, and will be readily available to the lead official on-site.
- c) If an event occurs that has media interest, the lead official on-site will immediately notify the authorities that have been identified by the Deputies and National Representatives. Those to be notified must always include the National Representatives, the Group Counsellor and the media representative of the Participant hosting the activity. If the activity is being hosted in a Third Party nation, the media



representatives of the host nation and of the Participant nation of the lead official on site must be notified.

- d) To relieve the burden on the lead official on site of the activity, it is recommended that the host National Representative, or another official designated by him, assume the responsibility to notify the remaining authorities in all TTCP nations. When the activity is conducted in a Third Party nation, the National Representative associated with the lead on-site official should assume that responsibility, unless agreed otherwise.
- e) All such arrangements must be in place before the activity begins.

5.3. Cooperative Program Personnel

5.3.1. Employees of one TTCP Participant can be assigned to work in the organization of another Participant under the supervision of that host Participant to support a TTCP Activity. The assigned person or persons are called Cooperative Program Personnel (CPP). A CPP attachment is distinguished from an ordinary visit by the fact that the person assigned will normally perform some research work in the organization for the TTCP Activity. Such assignments of Cooperative Program Personnel should be considered whenever this arrangement would provide a clear benefit to a TTCP Activity.

5.3.2. The assignment of Cooperative Program Personnel requires the agreement of only the parent and host Participants but the assignment must be for work on a specified TTCP Activity. The scope and duties of the Cooperative Program Personnel will be stated in a position description mutually determined by the parent and host Participants.

5.3.3. The parent and host Participants must also agree on other conditions, limitations, and financial arrangements. The National Representatives or National Leaders of the Participants involved will work out this arrangement. It will be approved first by the National Representatives of the parent and host nations, who will establish that the arrangement can be carried out within the laws and practices of their respective nations. Each Participant will determine the procedures to be used in its own organization to meet its part of the obligations.

5.3.4. Access to Information will be limited in accordance with Sections IX and XI of the TTCP MOU. All Information made available to the Cooperative Program Personnel will be considered as having been furnished to the parent Participant. The security clearance of the Cooperative Program Personnel will be established by the host Participant, to allow access to facilities and to Classified



Information and Material as needed for the Cooperative Program Personnel to accomplish their assignments.

5.3.5. Both before posting and on arrival, the host Participant's representative will inform the Cooperative Program Personnel of applicable laws and customs and the need to comply with them. At the discretion of the host, the Cooperative Program Personnel can be required to certify that they understand certain key items such as the scope of the assignment, access to Information, applicable regulations of the host, provisions of the TTCP MOU and security. A template for this certification is available in the Reference sections of the TTCP Website and Portal.

5.3.6. Cooperative Program Personnel will not act as liaison officers for the parent, will not act outside the scope of their assignment unless specifically authorized by the parent and host, and will not be assigned to a position that by law must be filled by an employee of the host. Cooperative Program Personnel will not be assigned duties that are politically sensitive or that could jeopardize the interests or lead to the embarrassment of either Participant. Cooperative Program Personnel will not be assigned to work where hostilities are underway or are likely.

5.3.7. No Participant will exercise disciplinary powers over Cooperative Program Personnel of another Participant. Each Participant will exercise appropriate disciplinary powers over its own Cooperative Program Personnel.

5.3.8. The financial arrangements are generally as follows. The parent Participant pays the normal costs of employment and relocation. These include all pay and allowances, relocation to the host country and return, all TDY costs when the travel is required by the parent Participant, relocation of dependents, and compensation for loss or damage of personal property. The host Participant pays the costs of the Cooperative Program Personnel performing their duties. This includes travel to do their jobs, relocations that the host requires, and the cost of facilities and equipment. These financial arrangements are more explicit in Section XVI of the TTCP MOU.

5.4. Contracting

5.4.1. Contributing Participants, in 'harmonization and alignment' efforts and TTCP Projects, are authorized to contract to meet their parts of the agreed effort. In doing so, a Participant will contract in accordance with its national laws and will also meet the provisions of the TTCP MOU. The other Participants will not incur any obligation or liability.



5.4.2. Contributing Participants in TTCP Projects are also permitted to contract on behalf of one or more of the other Contributing Participants, provided that any appropriate additional national approvals have been obtained. National International Agreements offices can provide advice on such additional approval requirements.

5.4.3. Here again, the Participant letting the contract will do so under its own national laws and will also meet the provisions of the TTCP MOU. Such contracting must be detailed in the Project Arrangement. Bids will be solicited from Contractors in the nations of all the Contributing Participants whenever possible.

5.4.4. Whenever one Participant contracts on behalf of other Participants, the requesting Participants will provide the funds necessary for the contract. Also, the requesting Participants will provide these funds in sufficient time to meet the obligations of the contract. Failure to do so might result in additional contract costs or penalties, and these become the obligations of the requesting Participant. The requesting and contracting Participants will jointly determine bid assessment factors and will provide members to the proposal evaluation team.

5.4.5. Groups contemplating contracting for TTCP efforts should carefully study Section VI, Contractual Arrangements, in the TTCP MOU and should ensure that the contracting officers are aware of the TTCP requirements. Specific provisions of the MOU that must be provided for in a contract are spelt out (and cross-referenced) in paragraph 6.5 of the MOU. These provisions include the requirement for a contractor to sign up to legally binding undertakings to protect the confidentiality of information received under the contract. This could be done under the terms of the contract or through a separate non-disclosure agreement. The specific requirements for assuring confidentiality are discussed in Section 5.5.

5.4.6. When engaging a Contractor from a Third Party nation, particular attention should be paid to section XII of the MOU and especially to paragraphs 12.2.1 and 12.2.3. If it becomes necessary for such a Contractor to have access to Jointly Generated Foreground Information (JGFI) to progress work for the Contract, then the provisions of paragraph 12.2.1 of the MOU must be invoked. This requires that, in addition to gaining the written consent of the other Contributing Participants, the TTCP Participant who engages the Contractor from the Third Party nation must also enter into an appropriate arrangement with the government of the intended recipient. This agreement is required to give assurances that the intended recipient will not retransfer, or permit the retransfer of, the JGFI and that the intended recipient will use the JGFI solely for



the purposes specified by the Contributing Participants. Where access to Background Information (BI) is required, and some or all of that BI was received from another TTCP Participant, the provisions of paragraph 12.2.3 of the MOU must be invoked. Here the TTCP participant engaging the contractor must obtain the prior written consent of the originating Participant before disclosing the BI.

5.4.7. Paragraph 8.6.1 of the TTCP MOU addresses the provisions that can be placed in Contracts, to cover rights in Inventions and Patent rights relating thereto. It describes two options, whereby either the Contributing Participant or the Contractor hold the title. It is suggested that when engaging Third Party Contractors the first of these would be the more appropriate, although the Contributing Participants could decide otherwise.

5.4.8. Contracts that could lead to Inventions should contain clauses establishing the rights of TTCP Participants to the use of those Inventions (see Section 5.7).

5.5. Participation

5.5.1. "Participation" means engaging in a TTCP effort as an active contributor to the planning and execution of the effort and, through this activity, securing access or other rights to TTCP Information of any category – Background, National Foreground or Jointly Generated Foreground Information. These categories are defined in the Glossary. Contractors or other entities that only provide a facility, equipment or service, but do not have access to TTCP Information and do not gain rights to such Information by their efforts are not participants. No special authorization is required to obtain such support.

5.5.2. Most TTCP activities involve all five TTCP Participants, and all five Participants should be offered the opportunity to participate in all TTCP activities. However, there may be instances in which some Participants elect not to participate. This can be the result of national policy, military relevance, or other factors. The TTCP MOU permits activities with as few as two TTCP Participants, although broader participation is desirable.

5.5.3. Participation in TTCP activities is normally limited to employees of the Participants (the Defense departments that signed the TTCP MOU) or their governments and associated national Contractor Support Personnel. Contractor Support Personnel are persons who provide administrative, managerial, scientific, or technical support services to a Participant under a contract with that Participant. Each TTCP Participant is responsible for assuring that its employees and Contractor Support Personnel observe all provisions of the TTCP MOU.

5.5.4. All Level 1, Level 2 and Level 3 Chair and National Representative / National Leader positions in TTCP should be filled by employees of a TTCP



government. However, Contractor Support Personnel can be used in other roles if they have executed a suitable arrangement of non-disclosure of any Information they may have access to, and their work is supervised and directed by a Participant. Beyond this, contracting to perform tasks required by a particular activity is permitted by the MOU under specific conditions. It is also permissible under a Project Arrangement for one Participant to place contracts on behalf of another Participant, with the benefiting Participant providing the funding, although additional national approvals may be required. This is discussed in Section 5.4.

5.5.5. A Participant can elect to engage a corporation, academic, representative of another Government Department, private individual or any other entity to support a TTCP activity by agreement as appropriate. If the entity is recognized as national to a TTCP nation, the Group National Representatives (or, if the authority has been delegated by the appropriate National Representatives, the Panel or Action Group National Leaders) of all the participating TTCP nations must consent to the involvement. If the entity is recognised as being from a non-TTCP country (i.e. is a Third Party Contractor) the TTCP Principals (or their delegates) must unanimously authorize the involvement.

5.5.6. Governments of non-TTCP nations (i.e. Governmental Third Parties) can take part in Information exchange, including symposia and workshops, provided a confidentiality arrangement is entered into among the participating TTCP nations and the Third Party government. A model confidentiality arrangement is available in the Reference sections of the TTCP Website and Portal. If the activity is harmonization and alignment, or a TTCP Project, a separate arrangement between the TTCP Participants and the governmental Third Party is required as the collaboration is considered to be outside the scope of TTCP. International agreements staff should be consulted about an appropriate text. Note that when a Third Party, whether it is a private or governmental entity, is involved in a TTCP effort in which the Third Party has access to TTCP Information, the provisions for Third Party Sales and Transfers discussed in Section 5.7 must be observed.

5.5.7. In many instances it is not clear whether an entity is a Third Party. Multi-national corporations and other world organizations are likely to defy easy categorization. If this issue should arise, the Group Counsellor can provide advice, or the rules that apply to Third Parties can be used.

5.5.8. The following table summarizes the requirements for participation by entities not normally included in TTCP efforts:



Activity	Required Arrangement	Approval Authority
Support of TTCP activity with no access to TTCP Information	None ⁵	N/A
Support or cooperative effort by a Contractor or other entity of a TTCP Participant with access to TTCP Information	Contract with confidentiality clauses ⁶	National Representatives or National Leaders of all TTCP Contributing Participants ⁷ must consent
Support or cooperative effort by a private entity Third Party with access to TTCP Information	Contract with confidentiality clauses	Principals of all TTCP Participants, not just the Contributing Participants, must authorize
Support or cooperative effort by a governmental Third Party with access to TTCP Information	Separate MOU	Principals of all Contributing Participants, must authorize

5.5.9. The TTCP Participants must protect TTCP Information to assure that it will not be disclosed. Recall that if a Contractor or other entity has absolutely no access to TTCP Information, no special approval for its involvement is necessary. This can be the case for an organization that merely provides a facility or service or for a person who briefs a symposium but does not engage in a two-way exchange. If the Information cannot be protected with reasonable assurance, a Contract with confidentiality provisions is required. This might be the case for trials at sea where the close quarters make protection of data and working notes difficult.

5.5.10. Note that Contractors and other private entities that are national to one of the TTCP countries are distinguished from their Third Party counterparts. National Representatives or National Leaders (if authorised) of the participating TTCP nations must consent for the former while the Principals of all TTCP

⁵ This support is not considered participation. However, TTCP Participants must provide any physical or procedural measures necessary to assure that the supporting party cannot gain access to TTCP Information.

⁶ The confidentiality arrangement can be a part of a contract, perhaps already in place.

⁷ The Executive Chair and the Group Counsellor must be kept informed about such participation.



nations must authorize the latter. Authorization to represent a nation is a national decision. The National Representative (Level 2) of the sponsoring Group is the person normally authorized to approve participation by an entity that is not a Third Party. A National Leader (Level 3) should not assume he has this authority unless it has been specifically delegated to him.

5.5.11. Principals may delegate their authority to approve confidentiality arrangements.

5.5.12. Any TTCP Group or subordinate element wishing to involve a Third Party must inform its Group Executive Chair and Group Counsellor. The process of negotiation for Third Party involvement may proceed, but the Group Executive Chair must be kept fully informed of progress and issues; and no arrangement for Third Party involvement can be concluded without a properly executed Contract, confidentiality arrangement or MOU, as appropriate.

5.6. Equipment and Material Transfers

5.6.1. Some TTCP activities require that Equipment and Material be transferred between TTCP Participants; for guidance purposes, this may include software packages. For US participants, your IPO should be contacted for further guidance. Such transfers are permitted after being properly documented and approved. A key point to note is that if the agreement is to involve the US, then the relevant US service IPO will take the lead in generating and negotiating the Equipment and Material Transfer (E&MT), so they should be consulted at the earliest stages of E&MT consideration. E&MT typically take approximately 3-6 months for the US to process; see flow-chart at Annex F.

5.6.2. If the US is not involved in the E&MT, there is a form available in the Reference sections of the TTCP Website and Portal which the participating nations may agree is suitable for this Transfer. It provides agreed-to clauses and conditions and a convenient way to present the information needed for the transfer.

5.6.3. For TTCP Projects requiring an E&MT, the Project Arrangement must provide the proper documentation or a procedure for later authorization of the transfer.

5.6.4. The Executive Chair should inform the Group Counsellor at the earliest opportunity of any potential E&MT. E&MTs will be registered and recorded by the Secretariat. Each E&MT will be assigned a serial number reflecting the sequential approval designation, the year of the approval and the subordinate element to which it relates.



5.6.5. An E&MT form or the Project Arrangement will describe the conditions of the transfer, the responsibilities of the parties and the issues of liability in the event of damage or loss to the transferred Equipment and Material. One form or Project Arrangement may cover a number of different items. Test equipment, material and other items that must be transferred on a periodic basis during a TTCP project, or throughout the term of a reporting period, may be included under a single E&MT form or Project Arrangement. It is the responsibility of the provider to gain the endorsement of the owner of any equipment or material to be transferred. Subsequent requirements for additional transfers should be separately documented when they do not fall within the scope of the initial E&MT form or Project Arrangement. Both returnable and consumable Equipment and Material can be transferred. The E&MT form or Project Arrangement will specify which items are to be returned.

5.6.6. National resource managers are usually authorized to sign TTCP E&MT forms in accordance with national procedures. US participants must consult their respective service IPO prior to signature.

5.7. Handling and Use of TTCP Information and Outputs

5.7.1. Since its inception, TTCP has sought to foster a spirit of open cooperation and collaboration among the nations involved. To permit the broadest possible exchange of technical Information, the MOU establishes the limits on the Disclosure and Use of Information exchanged or developed in TTCP activities. In particular, the TTCP MOU contains provisions in Sections III, VIII, IX and XII that address these issues. The following paragraphs are intended only as a guide to these provisions and their practical implementation.

5.7.2. The primary output of TTCP is Information. The TTCP MOU categorizes this Information in different ways. Within each category, various restrictions apply to the Disclosure and Use of Information and its transfer to a Third Party. Annex J provides a summary guide to these categories and the restrictions that apply.

Disclosure of Information

5.7.3. In Information exchange activities, the disclosure of Information is at the discretion of the furnishing Participant.

5.7.4. In harmonization and alignment efforts and in TTCP Projects, the general principle is that both Background and National Foreground Information are disclosed to all Contributing Participants and that further disclosure to other TTCP Participants is at the discretion of the furnishing Participant. Jointly



Generated Foreground Information can be disclosed by unanimous consent of the Contributing Participants.

5.7.5. The normal practice is to provide all TTCP publications to all TTCP Participants unless there is an extraordinary reason to do otherwise. National reports that contain Background Information necessary for a TTCP activity normally will be distributed to all TTCP Participants provided that (a) the disclosure does not violate proprietary rights and (b) the disclosure is consistent with the national disclosure policies and regulations of the furnishing Participant. The furnishing Participant is permitted to restrict distribution of this Background Information to just the Contributing Participants, but this restriction is discouraged. National Foreground Information (that generated by a single Participant in a TTCP Activity) will be disclosed to all of the Contributing Participants. This Information may be disclosed to other TTCP Participants (and even to Third Parties and other entities) at the discretion of the Participant generating the Information. Disclosure to all TTCP Participants is encouraged. Jointly Generated Foreground Information is disclosed to all Contributing Participants, and further disclosure requires the approval of all Contributing Participants. Disclosure to all TTCP Participants is encouraged.

5.7.6. Procedures for the disclosure of TTCP Information to Third Parties are discussed in the Sections below.

Use of Information

5.7.7. Background Information disclosed under the Information exchange provisions of the TTCP MOU (as distinguished from that exchanged as part of a harmonization and alignment activity or a TTCP Project) can be used only for information and evaluation purposes, i.e. it cannot actually be applied, unless the furnishing Participant gives permission in writing.

5.7.8. Background Information provided within a TTCP harmonization and alignment activity or a TTCP Project can be used by Contributing Participants for conducting the activity only. The results can be used for Defense Purposes⁸ only.

⁸ Defense Purposes are defined as the manufacture or other use in any part of the world by or for the armed forces of any Participant, or any lawful manufacture or other use by or for the governments of the Participants in the interest, promotion, or enforcement of their national security and civil defense but excluding defense sales or other transfers.



National Foreground Information and Jointly Generated Foreground Information can be used by the Contributing Participants for Defense Purposes. A Participant providing Background Information or National Foreground Information can elect to grant further authorization for use to the other Contributing Participants or grant authorization for use to non-Contributing Participants or a Third Party. For Jointly Generated Foreground Information, all Contributing Participants must agree before use by non-Contributing Participants or Third Parties can be authorized.

5.7.9. The above paragraph may sound quite restrictive but, in fact, it potentially permits all Information flowing from TTCP activities to be used for nearly anything a Defense establishment would like to use it for. The most notable exception is that a receiving participant cannot use the Information to manufacture (or otherwise generate) a product that is then sold to a Third Party unless written permission to do so is obtained from the furnishing Participant.

5.7.10. If there are any doubts about the protection of Information that may be provided, and the Information is Unclassified, then use can be made of the provisions in Section IX of the TTCP MOU: Controlled Unclassified Information. This Section permits the originating Participant to mark the Information with an appropriate legend that identifies it as Controlled Unclassified Information. Being so marked ensures that the Information will be used by the receiving Participants for the purposes identified in Section VIII of the MOU only. Access to the Information will be limited to those who need to use it and the Information will be subject to Section XIII of the MOU: Third Party Transfers and Sales.

Equitability

5.7.11. Paragraph 5.3 of the TTCP MOU requires that Contributing Participants in a TTCP Project (as recorded in a TTCP Project Arrangement) contribute an equitable share of the costs of that project. In return, each Contributing Participant will receive an equitable share of the results of that project. Contributions of any kind will be considered in determining equitability of cost sharing. These contributions could include Background Information and reports, and loan of equipment, as well as any research commissioned for the project.

5.7.12. It is possible for a situation to arise where the contributions are not equal among the Contributing Participants. In such a circumstance the results of the project could be shared among the Participants in proportion to their inputs, or the user rights could be varied. However, this situation is difficult to achieve because the main currency of TTCP, namely Information, can often be quite difficult to dissect and apportion in a rational manner. The usual approach is for



all the Contributing Participants to contribute an equal amount and then all the Participants can use all the results for their Defence Purposes.

5.7.13. Considerations of equitability should be a part of the negotiations of all TTCP PAs.

Third Party Sales and Transfers of Information

5.7.14. The sale or transfer of TTCP Information to Third Parties is prohibited except when permission is specifically granted in writing in accordance with the following paragraphs.

5.7.15. When a Third Party requests TTCP Information that has been provided by a single TTCP Participant (i.e. either Background or National Foreground Information), that Participant alone can decide whether to release the Information and can do so entirely according to its own national procedures. The requesting party should be informed that the request has been forwarded to the Participant providing the Information.

5.7.16. When an Executive Chair or National Representative receives a Third Party request for TTCP Jointly Generated Foreground Information, the Executive Chair and National Representatives of the Participants with rights to the Information (the Contributing Participants) will determine whether the Group favors release. If it does, the National Representatives then become responsible for obtaining the formal authorization of the national authorities of each of the Contributing Participants for releasing the Information. The Executive Chair will send to their Group Counsellor a memorandum stating the pertinent facts (i.e. the requesting party and agency, intended use, difficulty of providing only the requested Information, possible defense and commercial consequences, and benefits to the TTCP Participants). Each Deputy will coordinate with his National Representative to assure that all national approvals required by his nation are obtained. The Executive Chair is authorized to release the Information to the Third Party after obtaining official written authorization, with the concurrence of the Deputy, from each Contributing Participant.

5.7.17. If a Contractor is employed by a TTCP Participant to use TTCP-furnished Information on behalf of that Participant, the Contractor must be placed under a legally binding obligation not to further disclose that Information or use it for any purpose other than that for which it was supplied. If a Contractor is employed to generate TTCP Information, the Contracting Agency will negotiate to obtain the rights to disclose and use the Information consistent with the TTCP Disclosure and Use provisions. This could mean securing more rights than would be normal or indeed denying Contractors some rights that they would



normally obtain when Contracting with a Participant for work outside of TTCP. Contracting Agents should be advised of paragraph 6.5 of the TTCP MOU, as well as Sections 5.4 and 5.5 of this guide.

Computer Software and Software Documentation

5.7.18. Computer software and software documentation can be generated and exchanged under TTCP in the same way as other forms of Information, and they are subject to the same disclosure, use, and Third Party Transfer restrictions. Although no specific instructions are provided for the preparation, handling and transmission of such material, it should be marked in accordance with the instructions provided in Section 5.11 below. Handling and transmission must conform to national regulations.

Inventions

5.7.19. Special provisions are included at Section VIII of the TTCP MOU to ensure that Inventions, an especially valuable category of intellectual property, are properly protected. At the same time, these provisions ensure that any legal protection obtained for TTCP Inventions does not interfere with the legitimate use of Information generated and exchanged under TTCP by the TTCP Participants.

5.7.20. Any Invention made in the course of a TTCP activity, whether by a government employee or a Contractor employee, will be reported to the National Representatives of the Participants engaged in that activity. If after consultation with the other Participants the originating Participant decides to file a patent application, copies of the application must be provided to those other Participants through the National Representatives.

5.7.21. Under the TTCP MOU, each Participant engaged in the TTCP activity is granted a royalty-free license to use or have used any Patent granted for its Defense Purposes.

5.7.22. Paragraph 8.6 of the TTCP MOU contains contract provisions relating to Inventions. These should be brought to the attention of Contracting Agents. A Contracting Participant will secure for all Contributing Participants non-exclusive, irrevocable, royalty-free licenses under all Patents secured for any Invention, to practice or have practiced the patented Invention for Defense Purposes.



5.8. Classification

5.8.1. Under normal circumstances, Information up to and including the level of SECRET may be exchanged within TTCP, provided that national security regulations and procedures are followed. However, the MOU allows Information up to TOP SECRET to be exchanged under TTCP when the furnishing Participants concur. Section 4.3.20 gives guidance for Project Arrangements that require classified information.

5.9. Communications

5.9.1. Whenever possible, Group business should be carried out by correspondence to speed actions and decrease the number of meetings. Whenever the content is neither classified nor sensitive, the use of electronic communications is encouraged. To minimize the risk of leakage of unclassified but sensitive material, transmission of such material by e-mail is not permitted unless the Information is encrypted (such as via the TTCP Portal).

TTCP Website (Public Website)

5.9.2. The TTCP Website is a publicly accessible website at <http://www.dtic.mil/ttcp/> which provides an unclassified, open overview of TTCP, its roles and its management. Sensitive (i.e. technical) material cannot be placed on this site. For any problems using the website, or for suggestions for its improvement, please contact the US Secretariat. This website contains copies of all TTCP templates.

TTCP Webmail (Secure Email)

5.9.3. The TTCP Webmail, a dedicated TTCP SSL-protected web-based email system, is available at <https://ttcp.dstl.gov.uk/horde/> to enable personnel to exchange sensitive and Controlled Unclassified Information among TTCP nations⁹ (essentially data corresponding to the US 'For Official Use Only' caveat). Controlled Unclassified Information includes Information to which access or distribution limitations have been applied. Whether the Information is provided

⁹ Australian, New Zealand and UK users should note that RESTRICTED information should NOT be transmitted via the Webmail or placed on the Portal.



by a Participant or generated under a TTCP activity, it will be marked to indicate its "in confidence" nature.

5.9.4. Members of TTCP can register for an account by completing the registration form at the website. A user name and password will be sent to you by the appropriate national Secretariat member within a few days. For any problems using the Webmail system, contact the UK Secretariat.

TTCP Portal (Secure Website)¹⁰

5.9.5. An SSL-protected Portal provides a structured shared workspace, allowing all TTCP users to share 'unclassified but sensitive' documents (with version management), contribute information, carry on discussions and keep a shared calendar. In due course, this system will also incorporate the TTCP Webmail function. Members of TTCP will need to register for an account on the TTCP Portal by clicking on the "Request Account" link on the login page. When registering for an account, members are strongly encouraged to complete as much of the registration information as possible, as this is a key method for capturing contact information. Registering on the TTCP Portal automatically generates a Portal membership business card. The collective business cards constitute the TTCP Roster. For any problems using the Portal, or for suggestions for its improvement, contact the Canadian Secretariat or use one of the feedback links at the bottom of the login page. The Portal contains working areas for each TTCP Group, TP and AG, and is also the definitive TTCP reference site. Users are strongly encouraged to make use of this resource.

Griffin (Secret-High Email)

5.9.6. For the transmission of classified information at up to and including Secret level, the Griffin system should be used. This is a system operated by CCEB (the Combined Communications-Electronics Board), which links the national Secret-high email networks of the TTCP countries. Applications for Griffin accounts must be made via national channels. TTCP Secretariat members can provide further details on how to do this.

5.9.7. Classified Information and Material may also be transmitted through the appropriate Embassy channels in accordance with national procedures.

¹⁰ The Portal is available at <https://www.ttcp.drdc-rddc.gc.ca/>.



5.10. Sources of Further Information

Memorandum of Understanding (MOU)

5.10.1. TTCP is enabled by its MOU, which describes what can and cannot be done under its aegis. TTCP 201 is simply a user's guide to the MOU; the MOU retains precedence.

TTCP 101

5.10.2. A TTCP 101 – Beginner's Guide is available from the Secretariat, the TTCP public Website and the TTCP Portal. This is recommended reading for all newcomers to the organisation and contains a useful summary of roles and responsibilities. All the information in the 101 is also contained in this TTCP 201 document.

TTCP Structure and Points of Contact Poster

5.10.3. An organisational poster is available from the TTCP Secretariat and on the TTCP Portal. This lists all TTCP Groups, Technical Panels and Action Groups, plus contact details for all Executive Chairs and Group National Representatives. To notify the Secretariat of updates to the Poster, contact the UK Secretariat.

TTCP Portal and TTCP Website

5.10.4. The TTCP Portal contains all TTCP guidance documents, along with templates (within the Reference section) for reporting, etc. These templates can also be found on the Reference section of the Public Website. The available templates include the following:

Category	Topic
Basic Documents	Letter
	Presentation
Templates & Graphics	Logos
	Flags
	Screensaver
	CD Covers
Meetings	Agenda
	Minutes
Technical Reporting	Document
	Technical Report
	Limited Release Technical Report



Management Reporting	Group Annual Report TP / AG Annual Report EC Briefing Roadmap
Group / TP / AG Management	Group Terms of Reference TP / AG Terms of Reference
Task Management	Task Proposal Summary Task Outcome Report
Formal Agreements	Project Arrangement [if US NOT involved] Confidentiality Arrangement Cooperative Program Personnel Arrangement Equipment and Material Transfer Agreement [if US NOT involved]
Awards & Commendations	Team Award Proposal Team Award Poster Team Award Certificate Personal Award Proposal Personal Award Certificate

Secretariat

5.10.5. The Washington Secretariat members should be the first port of call for any advice or assistance pertaining to TTCP. Similarly, suggestions for improvement to any aspect of TTCP should be directed to the Secretariat, via the contact details at <http://www.dtic.mil/ttcp/>.

National Staffs & International Programs Offices

5.10.6. National Staffs / International Programs Offices generally take the lead in the preparation of formal agreements (such as Project Arrangements, and Equipment and Material Transfers) and are the definitive source of advice on these matters. The Secretariat can provide contact details for these offices in each nation.

5.11. TTCP Publications

5.11.1. To facilitate distribution and archiving of TTCP publications, they should be released on electronic media (normally CD-ROM) whenever practical. Hard copy publications may also be produced, in which case the national defense repositories (see Section 5.11.11) should receive both an electronic version and a hard copy. Care must be taken to ensure that the appropriate TTCP Disclosure and Use caveat is printed on the CD label and on the CD cover.



5.11.2. Wherever possible, unclassified TTCP publications should also be placed on the TTCP Portal as this is rapidly becoming the definitive reference source for TTCP.

5.11.3. The following provisions apply regardless of the medium used for the publication.

Types of Publications

5.11.4. The following are defined as TTCP publications. Note that the first two types of publications, TTCP Documents and TTCP Technical Reports are both TTCP Documents as the term is used in the MOU. In practice the two are distinguished on the basis of content but both are available to all Participants.

- a) **TTCP Documents** (DOC) are used to publish all minutes of meetings, proceedings of workshops, management studies, compilations of Terms of Reference, and similar publications *that are not principally technical in nature*. TTCP Documents are available to all Participants and need to be placed in the Group Folder on the TTCP Portal.
- b) **TTCP Technical Reports** (TR) are used to describe scientific, mathematical, technological, and engineering activities and achievements. Technical Reports can present theory and empirical results, operational analyses, system effectiveness studies, and any other technical activity undertaken by a TTCP element. The compendium of technical papers from a symposium can be a Technical Report. TTCP Technical Reports are available to all Participants.
- c) **TTCP Limited Release Technical Reports** (LRTR) are similar to TTCP Technical Reports but are distributed to fewer than all five Participants. Use of this type of publication requires the unanimous agreement of the National Representatives of the Contributing Participants. Its use is discouraged except when necessary to comply with national disclosure policy, to avoid infringement of proprietary rights, or for other compelling reasons.

5.11.5. TTCP publications are normally distributed among all member nations. They also may be released to additional parties and may even be given unrestricted distribution. Technical papers that report the activities of a single Participant, contributed as a part of a TTCP activity, may be distributed through TTCP but need not be classed as official TTCP publications nor reported within TTCP covers. Such papers must be available to all Contributing Participants.



Markings for Publications

5.11.6. TTCP publications (Documents, Technical Reports and Limited Release Technical Reports) must have the following markings:

- a) All TTCP hard copy publications will carry the TTCP logo prominently on the front cover and in other appropriate places in the publication. Authors should not vary the prescribed design of covers for TTCP publications. Although the color of the covers is not prescribed, it may be necessary to assign colors that conform to the common security classification requirements. The formats for the covers are available in the Reference sections of the TTCP Website and Portal.
- b) Any publication issued on CD-ROM, the preferred medium, must include the TTCP cover in the electronic data. In addition, a label on the CD-ROM disc and the cover sheet, if used, should contain the title, publication number, date and, most importantly, the proper caveat as described below. The label should also include the TTCP logo or crest. Use of color is encouraged to enhance the appearance of the CD-ROM. Formats are available in the Reference sections of the TTCP Website and Portal, although they can be adapted as required.
- c) TTCP publications will be numbered consecutively by the Groups from the start of each TTCP year. For example, DOC-WPN-2-2006 is the second TTCP Document issued by the Conventional Weapons Technology Group in TTCP year 2006. The Reference Folder, Sub-Folder Publications on the Portal contains a table to assist with numbering of TTCP publications.
- d) All TTCP Documents and Technical Reports will include a text box near the footer of the front cover containing one of the three caveats below in addition to any applicable security markings. This caveat should also be repeated on the actual CD-ROM label when publishing electronically. No other caveats may be used on TTCP Documents and Technical Reports. Other statements for Limited Release Technical Reports are given in Section 5.11.7 below. Although the caveat in paragraph (i) permits a recipient nation to use the disclosed Information for its Defense Purposes, it should be noted that the alternative caveat in paragraph (ii) limits the application of the disclosed Information to *evaluation* with respect to Defense Purposes. The statement in paragraph (i) will generally be applicable except where proprietary or government interests require the greater degree of protection provided by the statement in paragraph (ii).



(i) "This document contains Information which is provided in confidence to the Governments of Australia, Canada, New Zealand, the United Kingdom and the United States under The Technical Cooperation Program (TTCP) among these Governments. The Information contained herein may be used and disseminated for national Defense Purposes only within the recipient Governments and their national defense Contractors. The recipient Governments will ensure that any other use or disclosure of the Information is made only with the prior written consent of each of the above Governments."

(ii) "This document contains Information which is provided in confidence to the Governments of Australia, Canada, New Zealand, the United Kingdom and the United States under The Technical Cooperation Program (TTCP) among these Governments. This document may contain proprietary or commercially valuable Information and recipient Governments will not treat it in any manner likely to prejudice the rights of any owner thereof, including the right to obtain patent or like statutory protection thereof. The Information may be used and disseminated only for evaluation with respect to Defense Purposes within the recipient Governments who will ensure that any other use or disclosure is made only with the prior written consent of each of the above Governments."

e) When the National Representatives of the Contributing Participants unanimously authorize the release of a TTCP publication for open publication and unlimited distribution, the statement in paragraph (i) below will be applied to the document:

(i) "This document contains Information authorized under the auspices of The Technical Cooperation Program (TTCP) for unlimited release and distribution."

5.11.7. TTCP LRTRs are to have the following markings:

a) Hard copy TTCP Limited Release Technical Reports must display prominently on the front and back covers a header and footer statement indicating that distribution is limited to the specified nations "**Eyes Only.**" The front cover must conform to the template provided in the Reference sections of the TTCP Website and Portal. CD-ROMs must contain the "Eyes Only" notation and the appropriate caveat on the label and the cover sheet, if used.



b) One of the following caveats (suitably configured to be nationally relevant) must be included in a text box near the foot of the front cover page, clearly indicating the nations entitled to receive the report. As with the instances cited above, the caveat in sub-paragraph (ii) below should be used in those instances where the Information presented may have commercial or proprietary interests, and its use with respect to Defense Purposes is thus confined to *evaluation*.

(i) “This report contains Information which is provided in confidence to the Governments of [*state the nations concerned*] under the auspices of The Technical Cooperation Program (TTCP). The Information contained herein may be used and disseminated for national Defense Purposes within the recipient Governments and their national defense Contractors. Any other use or disclosure of the Information requires the prior written consent of the Governments of [*each of the above referenced nations*]”.

(ii) “This report contains Information which is provided in confidence to the Governments of [*state the nations concerned*] under the auspices of The Technical Cooperation Program (TTCP). The Information contained herein may contain proprietary or commercially valuable Information and recipient Governments will not treat it in any manner likely to prejudice the rights of any owner thereof, including the right to obtain patent or like statutory protection thereof. The Information may be used and disseminated only for evaluation in respect of Defense Purposes within the recipient Governments. Any other use or disclosure of the Information requires the prior written consent of the Governments of [*each of the above referenced nations*]”.

c) When a LRTR contains primarily proprietary Background Information that is essential for the use of TTCP Foreground Information in another LRTR, its use will generally be restricted to that needed to utilize the Foreground Information. In this instance, in place of the caveat (i) or (ii) above, the following caveat should be used:

(i) “This report contains Information which is provided in confidence to the Governments of [*state the nations concerned*] under the auspices of The Technical Cooperation Program (TTCP). The Information disclosed herein may be used and disseminated only to the extent necessary to utilize the Information contained in Limited Release Technical Report No. [*state Report number*] for



national Defense Purposes. Any other use or disclosure of the Information requires the prior written consent of [*state the nation or nations providing the Background Information*].”

Distribution of Publications

5.11.8. National Representatives are responsible for distribution of Group TTCP Documents and Technical Reports within their own nations, including national repositories, and uploading to the Portal.

5.11.9. Unlimited distribution of a TTCP Document or Technical Report is subject to the unanimous endorsement of the Contributing Participants on a case-by-case basis. Executive Chairs will submit the TTCP Document or Technical Report proposed for unlimited distribution to the Group Counsellor for concurrence of the Deputies. National Representatives will ensure that their respective national release procedures are followed. If the publication contains intellectual property, the procedure to authorize unlimited distribution is the same as that for release of TTCP Information to a Third Party. This is discussed in Section 5.7.

5.11.10. TTCP LRTRs will be distributed only among the participating nations. Wider release of TTCP LRTRs will be subject to the unanimous written concurrence of the National Representatives of the Participants.

5.11.11. TTCP publications and minutes prepared by Groups, Technical Panels, Action Groups and Projects will be distributed according to the following guidelines:

- a) Each TTCP Level 2 and Level 3 element will establish standard distribution lists for publications and minutes.
- b) Only persons needing the detailed information contained within official TTCP publications should be on the distribution lists. Normally, these are members of the organizational element involved. If there is a need to make other elements of TTCP aware of the work, then the Executive Chair or Chair of those elements should be included in the distribution.
- c) TTCP National Representatives are to ensure that Group Meeting minutes are placed on the appropriate Group folder on the TTCP Portal.
- d) TTCP National Representatives are to ensure that a copy of each TTCP publication and Group Meeting minutes are placed in the appropriate defense document repository in electronic media (normally CD-ROM) and, optionally, in hard copy. This task can be accomplished by sending TTCP publications to the addresses that follow:



Australia: Document Exchange
DSTO Research Library Edinburgh
PO Box 1500
Edinburgh SA 5111
Australia

Canada: Director R&D Knowledge and Information
Management (DRDKIM 3)
National Defence Headquarters
Major General George Pearkes Building
101 Colonel By Drive
Ottawa, Ontario K1A 0K2
Canada

New Zealand: Library
Defence Technology Agency
Auckland Naval Base, Private Bag 32901
Auckland
New Zealand

United Kingdom: DSTL Knowledge Services
Information Centre
Building 247, DSTL Porton Down
Salisbury, Wilts SP4 0JQ
United Kingdom
Tel: 01980 613971
Fax: 01980 613970
Email: knowledgeservices@dstl.gov.uk

United States of America: Defense Technical Information Center
8725 John J. Kingman Rd., Ste 0944
Fort Belvoir, VA 22060-6218
U.S.A.








Maintaining and Updating Publications

5.11.12. The responsibility for maintaining and updating TTCP unlimited distribution documents (publications that, due to their value to the academic, scientific and technological communities, are widely distributed – for example, JSA's GUIDEx) rests with the originating Group. The Group should nominate a member to review, maintain, update and reissue the document, as appropriate.



5.12. Relationship with Service Standardization Organizations

5.12.1. The aims and activities of TTCP bring the organization into contact with several existing Service Standardization Organizations whose interests are related to those of TTCP:

Logos (Control + Click on logos for Website Links)	Fora	Focus	Australia	Canada	New Zealand	United Kingdom	United States	Other
	ASIC: Air & Space Interoperability Council	Aerospace interop.	X	X	X	X	X	
	ABCA: American, British, Canadian & Australian Armies	Army interop.	X	X	X	X	X	
	AUSCANNZUKUS: Australia, Canada, New Zealand, UK, US Naval C4	Naval C4	X	X	X	X	X	
	CCEB: Combined Communications-Electronics Board	C3I	X	X	X	X	X	
	MIC: Multinational Interoperability Council	Military interop.	X	X		X	X	X
	MIP: Multilateral Interoperability Program	C2I interop.	X	X		X	X	X
	TTCP: The Technical Cooperation Program	Military S&T	X	X	X	X	X	

5.12.2. Informal discussions and technical Information exchanges are encouraged between all levels of TTCP and the Service Standardization Organizations. To facilitate this Information exchange, TTCP and the standardization organizations have nominated liaison officers to be the points of contact between these groups and TTCP. TTCP liaison officers can be identified via the TTCP Secretariat; the standardization organizations' liaison officers are generally listed on their respective organization Web sites. The Deputies must be informed of all significant discussions and copies of all significant correspondence will be forwarded to the Secretariat. Groups can arrange and conduct joint activities with these other organizations, but all policy issues must be referred to the Deputies.



6. **ANNEX A** **TERMS OF REFERENCE**

This section contains examples of Terms of Reference for TTCP Groups and Level 3 bodies. Electronic versions of the templates can be found in the Reference sections of the TTCP Website and Portal.

All parts in [square brackets] are unique to the Group, whereas all other text is standard for TTCP. Only the text in [square brackets] should be amended.

Please note that the examples given below are not current TOR.



TTCP Terms of Reference

[CHEMICAL, BIOLOGICAL AND RADIOLOGICAL DEFENCE GROUP]

Short name: [CBD]

1. **Field:** [Technology and system concepts for countering chemical, biological and radiological hazards]
2. **Authority:** The Group is established and will operate as a component of The Technical Cooperation Program (TTCP) of Australia, Canada, New Zealand, the United Kingdom, and the United States.
3. **Scope:** [The Chemical, Biological and Radiological Defence Group may undertake collaborative research and Information exchange on all methods of defence against chemical, biological and radiological hazards. This threat includes materials and devices that could be used by terrorists as well as those that could be used by national forces. Subjects may include detection of hazards (remote and point detection), protection of people and equipment (individual and collective protection), medical prophylaxis and treatment, decontamination, environmental remediation, and hazard assessment and modelling.]

[The work of CBD must be closely co-ordinated with the other TTCP Groups, particularly the Human Resources and Performance Group (HUM), Sensors Group (SEN), Command, Control, Communications and Information Systems Group (C3I), Conventional Weapons Technology Group (WPN), and Joint Systems and Analysis Group (JSA). These and other TTCP Groups may be conducting programs that could contribute to defence against weapons of mass destruction, and coordination is necessary to prevent undue duplication and to achieve maximum efficiency. These Groups are encouraged to harmonise their programs and cooperate on projects.]

The activities of the Group may encompass basic research, exploratory development, and demonstrations of advanced technology development (i.e. United States categories 6.1, 6.2 and 6.3). In addition to research and development of technology, this can include demonstrations of new system concepts, techniques and equipment, and their test and evaluation in technical



and operational environments; and the pursuit of alternative solutions to potential military problems. Development of specific systems intended for production is beyond the scope of TTCP; however, systems may be constructed to demonstrate technology and explore solutions to military problems. Systems may be studied to gain an understanding of the state of the art, to derive the departure point for future activity, and to evaluate current and near-term technical and operational capabilities.

4 Responsibilities: In its field the Group is responsible for meeting the following objectives:

- a. to improve the coordination and utilization of the collective resources and capacities of the member countries, broaden the base of scientific and technical knowledge, avoid unwarranted duplication, and take advantage of particular national capabilities;
- b. to maintain a continuous overview of the various programs and review the state-of-the-art to identify gaps in knowledge, limit technical problems, and exploit opportunities for collective action;
- c. to identify, promote and implement cooperative activities, projects and programs of high potential mutual benefit, subject to subsequent endorsement by the Principals;
- d. to ensure that the program of work is directed toward improved system performance, increased affordability, reduced life cycle cost and increased military capabilities, and that these benefits have a high potential payoff to the military community;
- e. to effect an interchange of Information, personnel and materiel as needed to accomplish the Group's program of work and as approved by national authorities;
- f. to promote common design criteria and test and evaluation procedures to facilitate interoperability of systems and the common use of test results;
- g. to establish and manage a limited substructure of Technical Panels and Action Groups as required to fulfil its mandate.

5. Direction: The Group will operate under the direction of the TTCP Principals within the provisions of the TTCP MOU and as amplified by the supporting document "Policies, Organization and Procedures in The Technical Cooperation Program" (TTCP 201). National security regulations and procedures will be followed. Information received through TTCP will be safeguarded as set out in the MOU and TTCP 201. Difficult cases in the release



of Information will be referred to the Washington Deputy designated as Group Counsellor. The Principals will appoint an Executive Chair of the Group from one of the participating nations. The Executive Chair and a National Representative from each participating nation will manage the agreed program and ensure its timely execution.

6. Formal Group Reviews: The Group will provide a written annual report on its activities, accomplishments, and plans to the Group Counsellor each year by 31 July. At the annual Principals meeting, the Group Executive Chair, or in exceptional circumstances his representative, will verbally present to the Principals the Group's Strategy, Progress & Achievements, Award Proposals, Future Program, Issues & Concerns, and Requests for Decisions & Guidance. The Principals will assess the accomplishments, potential for high mutual benefit, direction and focus of the Group, and will endorse or redirect the planned work program.

7. Term: The lifetime of the Group is not predetermined but depends on the assessment of the Principals regarding the Group's continuing value and potential to contribute.



TTCP Terms of Reference

[CBD Technical Panel 9 (TP-9) – HAZARD ASSESSMENT]

Field: [The measurement and prediction of the hazard presented by chemical, biological and radiological agents in the atmosphere and in military or industrial settings]

Authority: The Technical Panel is a subordinate element of the [Chemical, Biological and Radiological Defense Group (CBD)] that operates as a component of TTCP. The Technical Panel is authorized to conduct activities in basic research, advanced technology development, and exploratory development and demonstration.

Objectives:

[Provide a means to evaluate the challenge to personnel and their CB defensive equipment through the development, enhancement and validation of mathematical models (or a family of models) which describe the transport, dispersion (atmospheric dispersion), and deposition of CB agents.

Exchange data as required for the enhancement, development and validation of such models and, where possible, conduct collaborative laboratory and/or field experiments to fill data gaps.

Provide expert advice to the CB defense community on CB hazard modelling.]

Work Program for [the Year 06-07]:

[Task 1: Review air transport and dispersion models and techniques developed in TTCP and non-TTCP countries and assess their applicability to TTCP modelling needs.

Task 2: Continue next generation model development and validation with the following sub-tasks:

- Agent persistency modelling and data (UK/US)



- Concentration time series (UK)
- Monitor toxicity studies (all)
- Wind field monitoring (all)

Task 3: Continue urban CB hazard model development with the following sub-tasks:

- Conduct water channel urban wind/turbulence experiments (all).
- Develop low resolution CFD urban wind field model(CA).
- Conduct wind tunnel studies of the effects of 2D obstacles (UK).
- Complete prototype Universal Dispersion Model components for short-range/long-range urban dispersion (UK).]

Administrative Guidance:

The Technical Panel TOR will be approved and revised as necessary by the Group. For each new proposed task, the Technical Panel Chair will provide a Task Proposal Summary. These summaries should be distributed to all National Representatives of the Group.

[The Technical Panel Chair will submit a report to the CBD Group at least 60 days prior to the next Group annual meeting indicating the specific tasks completed in the past year and providing an assessment of the performance of TP-9 against the following metrics:

- Compliance with CBD Group directives (e.g. Terms of Reference, action items)
- Customer satisfaction (e.g. commendations, promotions or other indications of satisfaction that can be attributed to the work of TP-9)
- Scientific quality (e.g. peer review publications, TTCP awards, other evidence of scientific achievement)
- Achievement of milestones
- Value added through collaboration (e.g. capability gains, cost benefit)
- Articulation of achievements
- Future program (e.g. suggested terms of reference of suitable scientific quality with challenging measurable milestones and benefits)]

The Technical Panel will review, if appropriate, the use of advances in technology outside defense that could have an impact on their tasks (technology watch).



Within 45 days of the completion of a task, the Chair will submit a Task Outcome Report and a final Technical Report to the Group.

Approval:

With the concurrence of all [CBD] National Representatives, these Terms of Reference are approved.

[CBD] Executive Chair

Date



7. ANNEX B MEETING MINUTES

The Minutes of Meetings will generally contain records of the following:

- a) the meeting agenda;
- b) dates and place of the meeting;
- c) names and appointments of those attending;
- d) confirmation of acceptance of the minutes of the previous meeting, or a schedule of agreed amendments;
- e) a discussion of actions arising from the previous minutes;
- f) standing agenda items;
- g) new agenda items;
- h) other business.

The minutes will report the discussion on each item as necessary to ensure that all decisions can be fully understood, without ambiguity, by readers who did not attend the meeting. The decisions, conclusions and recommendations will be clearly identified and the responsibility for further action will be specifically designated. For meetings where technical annexes are to be included in the minutes, the minutes may be separated into multiple parts if practicable.

Minutes should be issued in electronic media (normally CD) and placed on the TTCP Portal if not classified. The appropriate TTCP Disclosure and Use caveat should be printed on both the CD label and the CD cover sheet. Hard copies may also be produced, but hard copy should not be the sole publication medium.



8. ANNEX C GROUP EXECUTIVE SUMMARY AND ANNUAL REPORT

Group Executive Summary

The Group Executive Summary should be no more than 2 pages long and can be presented in dot-point format. It should be structured as follows:

Summary of strategic direction

Summarises the Group's strategic objectives and directions

Significant highlights

Summarises major activities, progress and success stories over the past year. This should include major achievements from the TPs and AGs any Award nominations which the Group is making that year.

Major issues

These should be short statements raising problem areas worth drawing to the Principals' attention.

Major new initiatives

Summarises significant new areas where the Group has undertaken work in the previous year and areas being proposed for investigation.

Review TTCP xx guidance and actions

Summarises short responses to guidance and actions given to the Group at the previous annual TTCP Principals meeting

Health Matrix

Reproduce the Health Matrix

Requests for direction

Summarises statements at the appropriate level seeking Principals support and direction on Group direction



Group Annual Report

The Group Annual Report should be structured as follows:

Group Name

Group.

Reporting Period

1st August to 31st July [year].

Strategy

Up to 1 page, addressing the Group's strategic objectives and directions.

Progress & Achievements

1 to 2 pages, addressing major activities, progress and success stories over the past year. This discussion should include progress at the Group level, supplemented by major achievements from the TPs and AGs. It should not discuss progress at the smaller task level. This section should also include a brief discussion of any Award nominations which the Group is making that year.

Future Program

1 to 2 pages, addressing technology trends and primary opportunities for TTCP collaboration, and key Group-level activities planned for execution in the near term (with emphasis on the next year).

Issues & Concerns

Up to 1 page, addressing problem areas worth drawing to the Principals' attention.

Requests for Decisions & Guidance

Up to 1 page, addressing decisions, guidance or actions requested of the Principals.

Annexes

The Report should contain Annexes covering:

- Group Interactions (see Appendix 1 for details).
- Bibliography (see Appendix 2 for details).
- Task Breakdown (see Appendix 3 for details).



- Health Report (see Appendix 4 for details)
- New or significantly amended TP or AG TOR

The Annual Report should use bullet format as far as possible and the main body of the report must not exceed 7 pages in total.

Supporting Information

The following documents should also be made available to the Washington Secretariat by 31st July each year, either directly or via the TTCP Portal:

- Group Roadmap.
- Updated (as necessary) Group, TP and AG Terms of Reference.
- Task Proposal Summary sheets (collating all sheets for the Group's TP's and AG's for the reporting year, if used by the Group as explained in Annex G).
- Meeting Schedules for the Group and Level 3 bodies for the coming year.

There is no longer a requirement for a formal Strategic Plan (which previously was used to amalgamate many of these documents), although Groups are welcome to continue to use this format if they wish.



Appendix 1 to Annex C

Group Interactions

Annex A to the Annual Report should summarise the extent of interactions: 1) within the Group, amongst the Group's TP's and AG's; 2) with other Groups, for each of the Group's TP's and AG's; and 3) between the Group and other bodies. Examples of the required tables are provided below.

Example Format of Intra-Group Interactions Table

AER	TP1	TP2	TP3	TP4	TP5	AG1	AG2
TP1							
TP2							
TP3	✓						
TP4							
TP5	✓		✓				
AG1		✓		✓			
AG2						✓	

Example Format of Inter-Group Interactions Table

AER	C3I	CBD	EWS	HUM	JSA	LND	MAT	MAR	SEN	WPN
TP1							✓			
TP2								✓		
TP3	✓			✓						
TP4		✓								✓
TP5			✓							
AG1					✓				✓	
AG2							✓			

Example Format of Extra-Group Interactions Table

AER	ABCA	ASCC	CCEB	NATO	Nation A	Nation B
TP1		✓			✓	✓
TP2				✓		
TP3		✓				
TP4			✓			
TP5		✓				✓
AG1	✓					
AG2				✓		



Appendix 2 to Annex C

Bibliography

Annex B to the Annual Report should list all TTCP papers (i.e. those with a TTCP document reference) produced by the Group over the past year. However, it should not list documents that were simply exchanged under the auspices of TTCP. An example is provided below.

MAT Group Documents & Reports

[DOC-MAT-1-2004 MAT-GROUP Materials and Processing Technology Minutes of The 2004 Meeting 10 May –14 May 2004](#)

[DOC-MAT-2-2004 MAT GROUP Materials And Processing Technology](#)

[DOC-MAT-3-2004 MAT GROUP Materials And Processing Technology Strategic Plan 2003–2004.](#)

MAT TP1 Documents & Reports

[MAT-TP-1-1-2005 MAT-TP-1 Annual Report 2005](#)

[MAT-TP-1-2-2005 MAT-TP-1 Meeting Minutes 2004](#)

[MAT-TP-1-3-2005 OA27 Thermal Barrier Coatings](#)

[MAT-TP-1-4-2005 OA35 HCF Resistant Surface Enhancements for Engine Components](#)



Appendix 3 to Annex C

Task Breakdown

Annex C to the Annual Report should list: 1) those tasks that were started during the past reporting year (1 August to 31 July); 2) those tasks that have been ongoing throughout the past reporting year; and 3) those tasks that have been completed during the past reporting year. Where the research work on a task has finished, but the reporting is still in progress, the task should be considered ongoing. The definition of a 'task' varies amongst Groups; however, the tasks for a particular Group might be defined as those activities for which Task Proposal Summary Sheets have been completed.

Two examples of suitable formats are given below.

Example Format 1 of Task Breakdown Reporting

Technical Panel	Tasks Commenced	Tasks Ongoing	Tasks Completed
TP-1	3	8	4
TP-2	2	5	1
TP-3	9	25	10

Example Format 2 of Task Breakdown Reporting

Technical Panel	Task	Task Commenced	Task Ongoing	Task Completed
TP-1	1-1: Corrosion monitoring	X		
	1-2: Fatigue cracking			X
	1-3: Life-cycle modelling		X	
TP-2	2-1: Green munitions		X	
	2-2: MEMS			X



Appendix 4 to Annex C

Health Report

Annex D to the Annual Report should show a health matrix principally based on effort undertaken in the last year, but taking into consideration ongoing effort in previous years that has taken time to bear results. Note, the finalised Group Health Table will also need to be included in the Group Executive Summary. Group reporting will need to be based on assessment against the REAP criteria as defined below.

- Relevance (i.e., importance of work to national capabilities)
 - Provision of ‘advice’
 - Enhancement of military capability (including interoperability)
 - Support to other government initiatives (e.g. public security)
 - R&D seed-corn and technology transition into industrial bases (for procurement, etc)
- Excellence (i.e., quality of research and level of invention/innovation)
 - Quality of science
 - Advancement of technology
 - Enhancement of capability
- Adaptability (i.e., agility of TTCP and the work program)
 - Awareness of and response to emerging technologies and issues
 - Task length/turnover (including mortality), restructuring, personnel turnover
- Productivity (i.e., internal operating processes and volume of output)
 - Degree of Collaboration (program cooperation, coordination, harmonisation, burden sharing, etc)
 - Volume of outputs (workshops, reports etc)

At Group meetings, the Group would use the stoplight descriptions below to “map” their activities against the REAP criteria.

- Green The Group is performing well
- Yellow There is a need for some attention
- Red There are some serious issues to address



To respond to the “how well is the Group doing” and develop consistent assessment across the Groups, the following guidelines should assist in developing a stoplight indicator:

Relevance Questions

- How well is the work aligned to National Objectives, either Defence or security science? Approximately what percentage of work directly linked to the National goals of all or some of the participating Nations?
- Transition to use? How many Panel initiatives have transitioned out of TTCP into formal uptake by another program?

Excellence Questions

- How many papers/reports published?
- Feedback from peer technical experts (e.g., Group Panel or external review);

Adaptability

- This is mainly an organisational attribute. A green stoplight could highlight a particular “nugget” of rapid action that resulted in operationally useful outcomes (e.g., MANPADS week trials from 2005), or a yellow light could indicate that a Panel itself feels it needs renewed strategic guidance;
- “Turn-over” (i.e., percentage of satisfactorily completed work programs) should be captured;

Productivity

- Did the work efforts deliver the stated goals/objectives or metrics for that year? e.g., what was the percentage of on-track, on-time tasks? Care needs to be taken that this measure is not used to suppress effort directed towards “hard” challenges.

The Group profile should be linked to the Awards criteria; indications of exceptional performance should form the basis for developing an award nomination.

Whilst the responsibility to produce the overall Health Report rests with the Group, it is recommended that each of the TPs and AGs can also analyse their specific programs in terms of the stoplight criteria and report separately against



the REAP assessment. This would provide a record for the ECs when developing the annual report and reporting to the Principals at TTCP XX.

Annex D of the Group Annual Report should follow the tabulated format below and will need to be included in the Group Executive Summary:

	Assessment	Reason
Relevance	Green	
Excellence	Yellow	
Adaptability	Red	
Productivity	Green	



9. ANNEX D EC BRIEFING FORMAT

The Executive Chair should concentrate on the information that allows the Principals to do their job; i.e. the information presented should be relevant to the decisions that the Principals must make. These decisions relate to the structure of TTCP, the technological directions taken by TTCP Groups, the expansion or contraction of activities and the solution of problems that must be addressed at the level of Chief Scientist or equivalent. The Executive Chair should also make certain that the Principals come away with a full appreciation for the significance of the results achieved and of the research planned.

The time allotted for a Group briefing at the TTCP XX meeting is typically twenty minutes, which should consist of no more than 12 minutes of briefing, to allow 8 minutes of questions. Consequently, no more than 6 slides should be used.

There is no fixed structure for the Group annual briefing to the Principals. It should be tailored to the circumstances of the Group. The following outline is not prescriptive, but it might be helpful as a starting point and as a reminder of what is likely to be important.

Summary of Strategic Direction

- Strategic objective (what the Group is trying to accomplish, in general)
- Technology Trends (where is technology heading in the Group's area of responsibility and what are the primary opportunities for TTCP collaboration)
- Strategic Plan (how the Group is going about it)
- Group Structure (as it relates to the strategic plan)

Significant Achievements

- Success stories (from the past year)
- Activity turnover (assignments started, ongoing, reporting and completed)

Major Issues

- Problem areas worth drawing to the Principals' attention.



Major new initiatives (Future Program)

- Way Ahead
- Changes to Strategic Plan (if any)
- Changes to Level 3 Structure (if any)
- Key activities planned for the near term (with emphasis on the next year)

Review TTCP xx guidance and actions

- Responses to guidance and actions given to the Group at the previous annual TTCP Principals meeting

Requests for Direction

- Decisions, guidance or actions requested of the Principals



10. ANNEX E ACHIEVEMENT AWARDS

Team Awards.

Consistent with the Principals' Banner Statement for TTCP, nominations for Team Awards must address three fundamental criteria:

- a) Excellence
- b) Relevance
- c) Productivity

Guidance is given in the table below.

Excellence (i.e. quality of research and level of invention or innovation)

"TTCP will develop, share and integrate emerging defence science and technology..."

Describe the quality of the development and/or application of emerging defence science and technology. How difficult/challenging was the project from a scientific perspective? Under this criterion, the novel application of existing technology or knowledge (i.e. innovation) or the developments of new technology or techniques (i.e. invention) are equally valued. In the case of the former, to what degree were state-of-the-art developments in science, technology or analysis utilised? For the latter, how original was the scientific approach which led to the invention? In either case, have publications resulted from this work? What was the originality, depth and breadth of the effort (extent of concept development, experiments, analysis, theoretical development, code development, validation etc.)?

Relevance (i.e. importance of work to national capabilities)

"...to advance the military capabilities of the five member nations."

Describe the significance of the outcomes in terms of their relevance to current or emerging national and coalition defense capabilities. Benefits may be realized, for example, in requirements formulation, system development, acquisition, warfighting or potential savings in through-life resources that might accrue to member nations. For the latter, be quantitative when possible (e.g. reductions in



operating and maintenance costs, fewer people, fewer sorties per target destroyed, reduced stand-down caused by weather, etc.). Where appropriate, include an assessment of the impact of the work on future TTCP-nation interoperability.

Productivity (i.e. quality and degree of collaboration)

“TTCP will provide a trusted, productive and creative network that allows us to develop our best people, advance our best ideas and make full use of our collective opportunities.”

Describe the role that cooperation through TTCP made in achieving this advance. Make clear the contribution from each participating nation. Indicate what savings in time and cost resulted from the cooperation. What were the challenges in terms of logistics and coordination? Did the work progress according to schedule and budget?

Nominations for the Team Award must address all of the above criteria and must include sufficient technical and operational detail to permit the Principals to fully appreciate what was accomplished. The formal nomination may be supported by short papers or other supporting material that would help in the understanding of what was accomplished and in judging the value of the results.

Even if an overall project has not been completed or written up, the element of work that has been completed can still be eligible for an award if it meets the above criteria.

A nomination must also include a letter of recommendation from a flag level official or a laboratory director who understands and appreciates the technical and operational significance of the accomplishments. As far as possible, this official should be independent of the teams involved in the work.

Each nomination must include the name of each individual recipient as it will appear on the certificate (along with addresses and phone numbers, to facilitate contacting recipients to arrange an appropriate awards ceremony). The nomination must also include a brief citation, similar to that shown in Appendix 1, highlighting the military relevance and value of the work. As far as possible, the citation should be written such that someone who is not a technical expert can still appreciate the outstanding contribution.



Each nomination must also be accompanied by an electronic poster in a defined format. The template is available in the Reference sections of the TTCP Website and Portal. An example of such a poster can be found in Appendix 2.

In general the classification of awards will be UNCLASSIFIED. Where the subject matter is classified it is anticipated that an award submission can be suitably written to be unclassified. If not, then a classified submission should be made through the appropriate security channels. The handling of classified submissions will be managed on a case-by-case basis in consultation with the originator, Group Counsellors and Secretariat. In rare cases the sensitivity of the classified material may preclude the publicizing of the award. In these circumstances a nomination can still be made through the appropriate security channels to the Group Counsellor; however, there will not be any public acknowledgement of the award.

To summarize, a nomination for a Team Award must include the following:

- the justification for an award, addressing the criteria listed in the above table (generally no more than five pages in length);
- a draft citation (see Appendix 1 for an example);
- the name, address and phone number of each proposed individual recipient;
- a letter of recommendation; and
- an electronic poster (see Appendix 2 for an example).

The Executive Chair is responsible for ensuring the timeliness of the submissions, suitability of the nominations, completeness of the submitted material and the appropriateness of the proposed recipients. The Washington Deputies will evaluate the nominations and may employ peer review (i.e., review by independent experts) to ensure that high standards of excellence are maintained. The Deputies will then consider all the nominations collectively and will recommend to the Principals those they believe to be worthy of awards. All of the nominations will be provided to the Principals.

For approved awards, each team member listed in the nomination will receive an embossed certificate displaying the name of the individual and a short citation stating the team's achievement (see Appendix 1 for an example).



Personal Achievement Award

The Personal Achievement Award will be used in exceptional circumstances. The nomination for a Personal Achievement Award must consist of a substantive narrative by the Executive Chair discussing why an award is merited.

In the narrative it should be demonstrated that the individual has made a significant and specific contribution to a TTCP activity, which has resulted in a demonstrable success in a collaborative item of work (AG or TP). It may be that the collaborative activity could not have achieved success without the special contribution, and that the value of the personal contribution was well in excess of the average contributions by the fellow collaborators. Clear and notable benefits of the work to a Group, TP or AG must be demonstrated.

The personal achievement may have been made either during a defined and specific activity of a Group, such as an AG activity, or may have been made over a long period in support of a wide range of Group activities. However the Personal Achievement Award is not made simply in recognition of long service to a Group.

Long term Group support activities deserving a Personal Achievement Award could include:

- Long-term Executive Chairmanship or Chairmanship, where it has been clearly demonstrated that considerable benefit to the success of the Group and to the aims and objectives of TTCP have been achieved as a result of the individual's contributions.
- A member who has supported a particular technology as an expert, resulting in exceptional progress.
- A particularly effective leader in achieving cross-Group or cross-TP/AG/Project interactions, resulting in exceptional achievements from the integration of multi-group contributions

A nomination for a Personal Achievement Award must include:

- A description of the achievement (2 – 3 pages)
- A citation; and
- A letter of recommendation from either a flag-officer customer (or civilian equivalent) or the director of a national laboratory

An electronic poster is not required.



The Executive Chair is responsible for ensuring the timeliness of the submissions, suitability of the nominations, completeness of the submitted material and the appropriateness of the proposed recipients. The Washington Deputies will evaluate the nominations and may employ peer review (i.e., review by independent experts) to ensure that high standards of excellence are maintained. The Deputies will then consider all the Group nominations and any additional nominations that they may wish to propose. They will recommend to the Principals those they believe to be worthy of awards. All of the nominations will be provided to the Principals.



Appendix 1 to Annex E

Example of a Team Achievement Award Citation

The TTCP Achievement Award certificates are prepared by the Washington Secretariat on card embossed with the TTCP logo and the words "The Technical Cooperation Program Achievement Award. An example of the wording and format of the remainder of the certificate, including the use of the citation, is shown below.

Presented to

Austin Powers

for contributions to TTCP Collaboration in

HUM Group Technical Panel 12

This award is made for demonstrating the physiological, immunological and medical advantages of a hypertonic fluid resuscitation capability for casualty care. A Resuscitation Outcomes Consortium was created to implement the largest-ever, federally funded, international multi-center clinical trial to validate the use of hypertonic fluids for resuscitation. Results will provide both medical and logistical advantages for front-line casualty care and significantly improve interoperability.


Mr. Mike Markin, UK Principal, for the TTCP Principals

Dated



Appendix 2 to Annex E Example of a Team Achievement Award Poster

An electronic version of the Award Poster template can be found on the TTCP Website and Portal. An example poster is shown below.



Small-Volume Hypertonic Fluid Resuscitation for Hemorrhagic Casualty Care


HUM TP-12, Combat Casualty Care


Program Name: Small-volume Fluid Resuscitation for Combat Casualty Care


Objective: To conduct collaborative scientific research to provide evidence-based information and to organize technical workshops to develop consensus recommendations to facilitate the validation of small-volume hypertonic solutions for resuscitating post-traumatic hemorrhagic casualties. Exploit experimental research results and preliminary clinical trial studies to influence the commitment of federal institutions for a major, international multi-centre pre-hospital clinical trial.

Payoff: Studies demonstrated the efficacy of hypertonic fluids in restoring blood pressure, reducing inflammatory complications, and improving clinical outcome of hypovolemic shock casualties. A substantial reduction in fluid volume would dramatically reduce the logistical burden on the battlefield, thus facilitating lighter and more agile medical support and promoting interoperability among allied nations.

Participants:


DRDC


DSTL


USAMRMC

Future Activities: To identify and evaluate other novel anti-inflammatory, life-saving fluid resuscitation capabilities.

Creation Text: This award is made for a significant contribution to collaborative team efforts in demonstrating the physiological, immunological and medical advantages of a hypertonic fluid resuscitation capability for casualty care. The outcome of this framework, led by HUM TP12, has successfully influenced the commitment of international federal agencies and institutions to create a Resuscitation Outcomes Consortium to implement the largest-ever, federally funded, international multicenter clinical trial to validate the efficacy of small-volume, hypertonic fluids for resuscitating hypovolemic shock casualties. The validation of this fluid resuscitation capability will provide both medical and logistical advantages for front-line casualty care and will also facilitate interoperable forward medical operations among TTCP and allied nations.

Hypertonic Saline (at <10% volume of normal saline) Restores Blood Pressure and Reduces Inflammatory Medical Complications



Hours Post-Resuscitation	Isotonic Saline	Hypertonic Saline
Baseline	~100	~100
1-h	~110	~100
3-h	~115	~100
6-h	~120	~100
24-h	~115	~100

Small Volume Hypertonic Fluid Resuscitation



Resuscitation Outcomes Consortium (ROC)





Appendix 3 to Annex E

Guidance on Group Achievement Award Presentations

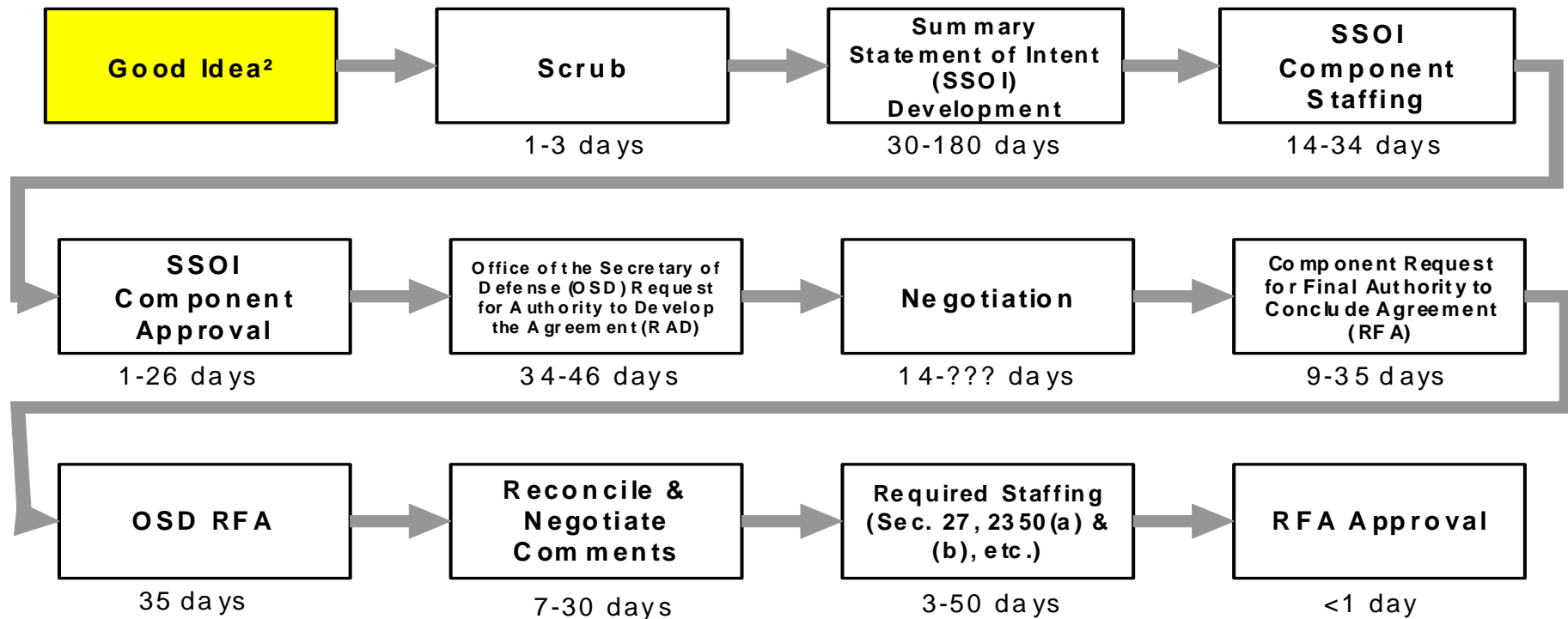
Presentation of Awards to TTCP XX

Group briefings of award nominations at TTCP XX will be held at a separate programmed session to other Group briefings. Each nomination will be restricted to 5 minutes and 1 viewgraph, in the form of a poster (see Appendix 2 to Annex E above) or a quad-chart. Where there are multiple award submissions from a Group, the EC is to provide a Group prioritization of the submissions. The presentation material should include:

- Objectives
- Participants
- Outcome
- Impact



11. ANNEX F US INTERNATIONAL AGREEMENTS PROCESS



1. This process is for Project Arrangements and Equipment & Material Transfers that involve the United States only.
2. When the group or technical panel determines the need to engage in a Project Arrangement (PA) or Equipment & Material Transfer (E&MT) with the United States, the following must occur:
 - Obtain the endorsement from the National Representatives of the participating nations.
 - Once National Representative endorsement is received, Executive Chair approval of the PA or E&MT is required.
 - Once obtained, the U.S. lead for the PA or E&MT must engage their appropriate International Programs Office. Please contact the U.S. Secretariat with any questions or concerns.



12. ANNEX G TTCP PROJECT ARRANGEMENT

The following table summarises the staffing and approval process.

STEP 1 – PA Concept Formulation
<ul style="list-style-type: none">- Although typically developed from TTCP Level 3 (TP/AG) discussions, PAs may also arise from a wide range of agencies outside of TTCP- Technical staff should contact Washington Secretariat at the earliest stage for guidance- Technical staff develop proposed program objectives, scope, work sharing, schedule and estimated resources- The schedule of tasks and timeline will normally be based upon planned duration of the activity (first phase to commence on the PA signature date) rather than actual dates
STEP 2 – TTCP Level 2 (Group) Endorsement
<ul style="list-style-type: none">- Group National Representatives, with the support of the Group Counsellor, consider the proposal and provide guidance (e.g. ensuring that the proposed work falls within in the scope of the TTCP MOU etc)- Lead and participating nations identified (as few as two nations can conduct a PA). Project Leader and Project Officers (PO) named- Group Executive Chair must endorse the planned collaboration as part of the Group program before the proposal can proceed as a TTCP PA
STEP 3 – PA Concept Development
<ul style="list-style-type: none">- With assistance from International Program Offices, POs undertake detailed technical discussions to refine the program details and consider potentially problematic issues. Good dialogue and planning at this stage is typically rewarded with a significantly reduced likelihood of future delays- Once the PA proposal is sufficiently mature, the International Program Office will prepare a draft PA and request authority to negotiate the PA, with any supporting national documentation
STEP 4 – Draft PA issued for National Staffing
<ul style="list-style-type: none">- Lead Nation distributes the first negotiation draft of the PA, together with the proposed negotiation schedule (e.g. dates for any planned meetings, schedule for draft review process and planned signature date)- Project Officers should maintain close liaison with their national negotiating authorities during the negotiation phase
STEP 5 – PA Negotiation
<ul style="list-style-type: none">- Lead Nation manages the negotiation process utilizing maximum concurrent staffing until agreement is reached- The relevant TTCP Group Counsellor and the US TTCP Secretariat Member (for tracking purposes) should be kept informed of progress and any difficulties encountered- It is the responsibility of the Project Leader (supported by the other POs and all involved) to 'champion' the negotiation process. This will involve playing an active role in monitoring progress and taking action where possible to avoid or minimize delays
STEP 6 – PA Signature
<ul style="list-style-type: none">- PA serial number requested from the US TTCP Secretariat Member and signature-ready PA text emailed for final review- Nations advise their readiness to sign - normally by the Participating Principals, or in the case of the US, a senior officer from the relevant executive authority/ IPO- In time-critical situations, the non-US Principals may wish to authorize their TTCP Washington Deputy to sign on their behalf in Washington DC (can save several months)- Lead Nation, via the relevant Washington Deputies, coordinates the signature process and distributes copies of the PA



13. ANNEX H TASK MANAGEMENT

Two documents are suggested to manage TTCP tasks:

- Task Proposal Summary (see Appendix 1)
- Task Outcome Report (see Appendix 2)

These documents should be completed, as appropriate, by the TP or AG for each activity. It is strongly recommended that these documents are stored on the TTCP Portal, where they can be accessed by the entire Group and the Washington Staff.



Appendix 1 to Annex H

Task Proposal Summary

The purpose of this document is to summarise the objectives of the proposed work, the resource implications and the milestones against which progress (and success / failure) can be judged. The document might contain the following sections:

[Note that any substantial change in scope or in assignment of responsibility in a Project will likely require amendment of the Project Arrangement.]

TTCP Sub-element

TP or AG and any task designation.

Task Title

Formal name of activity.

Scope and Objectives

State the boundaries of what is to be done under the task and outline the objectives to be accomplished. (4-10 lines).

Rationale and Defence Relevance

Outline the purpose of the task, the reason for undertaking the task in a multilateral environment and the anticipated outcomes, benefits and impact. (4-10 lines).

Sponsor

Who commissioned the task and what nations, organizations, agencies, or Services require the outcome?

Client Requirements

Who will take the technology to the next stage of development and/or acquisition? Who will be the ultimate user of this technology (preferably a warfighter)? How does the technology address a real client need or requirement? (15-20 lines).



Estimated Effort/Resources

List the participating nations and the total staff years expected to be provided to the task by each nation.

Milestones

In a table or chart format, list the important events in the life of the task including the start and completion dates, significant deadlines, decision points and any relevant trials dates.

Prepared By

Name, phone number and e-mail address of the author.



The purpose of this report is to provide information regarding the outcome of a task at task completion. It is important to note that the intended reader of this report is not necessarily an expert in the subject matter addressed by the task. Consequently, this report should not be too technical in content.

Throughout the report graphics, tables, illustrations, and simple equations are encouraged to present the material effectively to the general readership.

The document might contain the following sections:

TTCP Sub-element

TP or AG and any task designation.

Task Title

Formal name of activity.

Task Description

A general summary statement describing the objectives that the work group set out to achieve. The objectives should be set in a context of military relevance.

Achievement of Task Objectives

The results achieved with respect to task objectives and goals. The intent of this section is to highlight task achievements; however, shortfalls against intended goals should also be discussed, if appropriate. Here are some typical achievements:

- prototype or proof-of-concept demonstrated;
- new knowledge discovered;
- products produced;
- analysis or other service provided; and/or
- processes improved.

Conclusions

This section should include summary conclusions that can be drawn from the data or experience of the task. An example set of topics follows:



- task impact (e.g. how it improves a military capability, what new military capability is provided, how it advances technology, provides educational opportunity, heightens awareness, or produces cultural change);
- problems encountered which have implications for warfighting;
- “lessons-learned”; and/or
- best practices.

Recommendations

When useful, this section should be included. This section should contain recommendations regarding possible applications for the work, how it can be taken further and by whom, and the direction the work group or TTCP at-large should take with regard to future work. Recommendations should be actionable. An example set of recommendations follows:

- use output to enhance operational models;
- transition to next phase (e.g. production, training, operation);
- cancel plans for future efforts in related areas; and/or
- pursue follow-on work.

Annex A – Personnel and Organizations Involved

This section should list the task leader and the POC from each TTCP nation and the telephone, fax and e-mail information. If the task has had a military advisor for operational or requirements information, this person can also be listed if his organization has no objection. Also include the TTCP reference number, if assigned. Include a statement such as “Further information can be obtained by contacting any of the national POCs.”



14. ANNEX I TP / AG ANNUAL REPORT

The recommended (but not mandated) structure of a TP / AG Annual Report is as follows:

TP / AG Name

TP or AG.

Reporting Period

1st August to 31st July [year].

Strategy

The TP/AG's statement of strategic objectives and directions drawn from the Group's strategic objectives and directions.

Progress & Achievements

In-year progress should be described with respect to the plan in the previous year's Annual Report. Show achievement of key milestones and deliverables, explaining how the progress is related to the TP/AG's strategic objectives. Identify highlights from the current year as candidates for inclusion in the Group annual report. Highlights are to be expressed in a language suitable for a general technical audience, not a technical specialist.

Future Program

Describe key elements from the proposed Tactical Plan (if used; see below for details), identifying their relationship to the TP/AG's strategic objectives.

Issues & Concerns

Discuss problem areas worth drawing to the Executive Chair and National Representatives' attention.

Requests for Decisions & Guidance

Discuss decisions, guidance or actions requested of the Executive Chair and National Representatives.

Annexes

In addition, the Group may mandate any or all of the following Annexes:



- Group Interactions (see Appendix 1 for details).
- Bibliography (see Appendix 2 for details).
- Task Breakdown (see Appendix 3 for details).
- Tactical Plan (if used; see Appendix 4 for details)
- Meetings Planned (see Appendix 5 for details)
- Health Report (if used; see Appendix 4 to Annex C for details)

The document should use bullet format as far as possible. The Annexes to the Annual Report are explained in the following Appendices.



Appendix 1 to Annex I

Group Interactions

Annex A to the Annual Report should summarise the extent of interactions: 1) within the Group, amongst the Group's TP's and AG's; 2) with other Groups, for each of the Group's TP's and AG's; and 3) between the Group and other bodies. Examples of the suggested tables are provided below.

Example Format of Intra-Group Interactions Table

AER	TP1	TP2	TP3	TP4	TP5	AG1	AG2
TP1		✓		✓			

Example Format of Inter-Group Interactions Table

AER	C3I	CBD	EWS	HUM	JSA	LND	MAT	MAR	SEN	WPN
TP1							✓	✓		

Example Format of Extra-Group Interactions Table

AER	ABCA	ASCC	CCEB	NATO	Nation A	Nation B
TP1		✓			✓	✓



Appendix 2 to Annex I

Bibliography

Annex B to the Annual Report should list all TTCP papers (i.e. those with a TTCP document reference) produced by the TP / AG over the past year. However, it should not list documents that were simply exchanged under the auspices of TTCP. An example is provided below.

MAT TP1 Documents & Reports

MAT-TP-1-1-2005 MAT-TP-1 Annual Report 2005

MAT-TP-1-2-2005 MAT-TP-1 Meeting Minutes 2004

MAT-TP-1-3-2005 OA27 Thermal Barrier Coatings

MAT-TP-1-4-2005 OA35 HCF Resistant Surface Enhancements for Engine Components



Appendix 3 to Annex I

Task Breakdown

Annex C to the Annual Report should list: 1) those tasks that were started during the past reporting year (1 August to 31 July); 2) those tasks that have been ongoing throughout the past reporting year; and 3) those tasks that have been completed during the past reporting year. Where the research work on a task has finished, but the reporting is still in progress, the task should be considered ongoing. The definition of a 'task' varies amongst Groups; however, the tasks for a particular Group might be defined as those activities for which Task Proposal Summary Sheets have been completed.

Two examples of suitable formats are given below.

Example Format 1 of Task Breakdown Reporting

Technical Panel	Tasks Commenced	Tasks Ongoing	Tasks Completed
TP-1	3	8	4

Example Format 2 of Task Breakdown Reporting

Technical Panel	Task	Task Commenced	Task Ongoing	Task Completed
TP-1	1-1: Corrosion monitoring	X		
	1-2: Fatigue cracking			X
	1-3: Life-cycle modelling		X	



This consists of:

- 1) a roadmap (e.g. a Gantt chart – although the format is for the Group / TP / AG to determine) showing key deliverables and identifying the elements of the Group's Strategic Plan to which they contribute. Note that the Group should be able to create the Group-level roadmap by consolidating the roadmaps of its subordinate elements. An example of a Group roadmap is shown below.
- 2) a copy of the Terms of Reference, and Task Proposal Summary Sheets (if used) for the TP/AG's subordinate activities (tasks, key technical areas, workshops, studies, etc.) proposed for the next 3 years.

Example Format of Group Roadmap

Note that the format is not specified.

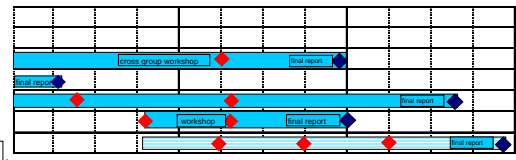


ITTCP WPN Group Programme Plan
version 1.0 August 1999

Mission Thrusts

AG14	Precision Strike
AG16	Ship Point Defence
AG17	Non-Lethal Weapons
AG18	Small Unit Operations
AG19	Land Mine Disposal Technologies
AG20	Weapons for Littoral Warfare
AG21	Novel Energetic Materials

CY 2000 1Q 2Q 3Q 4Q CY 2001 1Q 2Q 3Q 4Q CY 2002 1Q 2Q 3Q 4Q



Defence Technology Drivers

- Performance
- Cost
- Safety
- Interoperability
- Environmental Impact
- Precision Strike
- Ship Point Defence
- Non-Lethal Weapons
- Small Unit Operations
- Land Mine Disposal
- Littoral Warfare
- Novel Energetic Materials

Technical Panels

TP1	Terminal Effects	Performance	Cost	Safety	Interoperability	Environmental Impact	Precision Strike	Ship Point Defence	Non-Lethal Weapons	Small Unit Operations	Land Mine Disposal	Littoral Warfare	Novel Energetic Materials
	V/L Mobile Land Targets												
	V/L Fixed Land Targets												
KTA 1-33	Concrete Material and Structural Modelling for Prediction of Terminal Effects against Hard Targets												
	V/L Sea Targets												
KTA 1-36	Terminal Effects Phenomena in the Littoral Zone												
KTA 1-37	Simulation of Underwater Explosion Effects												
	V/L Air Targets												
KTA 1-32	Modelling of Air Target Vulnerability/Lethality for Ship Point Defence												
	Personnel Vulnerability												
KTA 1-34	Protection of Armoured Vehicles & Occupants from Landmine Blast Effects												
KTA 1-35	Development of Lower Leg Physical Model for Enhanced Soldier Survivability against Landmines												
KTA 1-38	Development of Thoracic Physical Models for Behind Armour Blunt Trauma Assessment												
	KE & CE Penetrating Warheads												
	Blast & Fragmentation Warheads												
	Demolition Technology												
	Hydrocodes												

TP2	Launch & Flight Dynamics	Performance	Cost	Safety	Interoperability	Environmental Impact	Precision Strike	Ship Point Defence	Non-Lethal Weapons	Small Unit Operations	Land Mine Disposal	Littoral Warfare	Novel Energetic Materials
	Isolated Weapon Aerodynamics												
KTA 2-16	Alternative Control Technology for Guided Weapons												
KTA 2-19	Application of CFD to the Prediction of Complex Missile Configurations												
	Carriage & Release of Stores												
KTA 2-14	CFD Techniques for Stores, Carriage & Release												
KTA 2-18	Accelerated Development of Theoretical Trajectory Prediction Techniques Using Flight Measurements												
	Launch Dynamics												
	Hypersonic Aerodynamics & Heating												
KTA 2-17	System, Flight Test & Computational Analysis of Hypervelocity Manoeuvring Projectiles												

TP4	Energetic Materials & Propulsion Technology	Performance	Cost	Safety	Interoperability	Environmental Impact	Precision Strike	Ship Point Defence	Non-Lethal Weapons	Small Unit Operations	Land Mine Disposal	Littoral Warfare	Novel Energetic Materials
	Airbreathing Propulsion												
KTA 4-25	Performance Modelling of Future Missile Propulsion Systems												
	Environmental Aspects												
KTA 4-28	Protocol for EM Contaminated Site Characterisation												
	Gun Propulsion												
	Hazard Assessment												



Appendix 5 to Annex I

Meetings Planned

This should list dates and locations for all meetings for the coming year and be provided to the Secretariat by the end of September each year. This is to enable the Secretariat to inform the Principals at TTCP-XX, and allow other Groups, TPs and AG's, the Washington Staff and non-TTCP organisations (such as the other Multifora bodies) to monitor and become involved in TP and AG activities, if desired.



15. ANNEX J DISCLOSURE AND USE OF INFORMATION

The following table summarises the TTCP information use and disclosure regulations.

INFORMATION SOURCE	INFORMATION CATEGORY	DISCLOSURE		USE		AUTHORITY NEEDED FOR THIRD-PARTY ¹ RELEASES
TTCP Publications	Background, National Foreground, Jointly-Generated Foreground	To all TTCP nations ²		Defense Purposes ³		All TTCP nations decide
Information Exchange	Background	To all TTCP nations, provided at discretion of furnishing nation		Information & evaluation only unless otherwise authorized by originating nation		Originating nation's discretion
		<i>To CPs⁵</i>	<i>To non-CPs</i>	<i>To CPs</i>	<i>To non-CPs</i>	
TTCP Activities (Harmonization & Alignment; and Project Arrangements)	Background	To all CPs, subject to ⁴	Originating nation's discretion	Defense Purposes	Originating nation's discretion	Originating nation's discretion
	National Foreground	To all CPs	Originating nation's discretion	Defense Purposes	Originating nation's discretion	Originating nation's discretion
	Jointly-Generated Foreground	To All CPs	All CPs decide	Defense Purposes	All CPs decide	All CPs decide

¹ Third Party = a non-TTCP nation or an entity of a non-TTCP nation. See Definitions.

² TTCP Publications are normally distributed to all nations, other than in exceptional circumstances.

³ Information contained in TTCP Publications may be used for Defense Purposes except where a more limiting caveat has been applied by the TTCP furnishing party(s).

⁴ The originating nation determines that the Information is considered necessary to, or useful in a TTCP activity; that the Information can be made available without incurring liability to holders of proprietary rights; and that disclosure of the Information is consistent with national disclosure policies and regulations of the originating nation.

⁵ CP = Contributing Participant. See Definitions.



Published by the Washington Secretariat on behalf of the TTCP Principals.

For further information or comments on any aspect of this document, please contact the Washington Secretariat via the contact page on the TTCP Public Website or via the contact information on the TTCP Portal.