

# The Technical Cooperation Program

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

---

## **TTCP DOCUMENT**

**A Beginner's Guide  
to  
The Technical Cooperation Program**

## **TTCP '101'**

30<sup>th</sup> September, 2007

DOC - SEC - 01 - 2007

# CONTENTS

---

1. INTRODUCTION .....	3
2. HISTORY .....	4
3. OBJECTIVES & SCOPE .....	5
4. RELATED ORGANISATIONS.....	6
5. STRUCTURE.....	7
Level 1 .....	7
Level 2 .....	8
Level 3 .....	8
Pan-TTCP Activities .....	9
Supporting Personnel.....	9
6. MANAGEMENT.....	10
7. PARTICIPANTS ROLES & RESPONSIBILITIES.....	11
Level 1 .....	11
Level 2 .....	12
Level 3 .....	12
8. MEETINGS, REPORTS & PUBLICATIONS .....	13
Annual Cycle.....	13
Reporting Requirements.....	13
Report Guidance .....	14
Awards.....	14
Publications .....	14
9. CLASSIFICATION & COMMUNICATONS .....	15
TTCP Website (Public Website).....	15
TTCP Webmail (Secure Email).....	15
TTCP Portal (Secure Website).....	15
Griffin (Secret-High Email) .....	16
National Document Repositories.....	16
TTCP Caveats.....	16
10. SOURCES OF FURTHER INFORMATION .....	17
Memorandum of Understanding (MoU).....	17
TTCP 201 (formerly POPNAMRAD) .....	17
Secretariat .....	17
National Staffs & International Programmes Offices .....	17
11. INDUCTION PROCESS.....	18



## 1. INTRODUCTION

---

The Technical Cooperation Program (TTCP) is a forum for defence science and technology collaboration between **Australia, Canada, New Zealand, the United Kingdom** and the **United States**. It is governed by its own **Memorandum of Understanding** and is probably the largest collaborative science and technology organization in the world. The numbers below give some idea of the scale of TTCP:

5	nations involved
11	technology and systems Groups
80	Technical Panels and Action Groups
170	organisations involved
300	active work strands
450	sites involved
1,200	scientists and engineers directly accessed
6,000+	scientists and engineers accessed in total
500,000,000	\$'s approximately of programmes shared through TTCP per annum

This document is a short guide to TTCP and its objectives, organisation, management and operation. It is designed for newcomers to TTCP, who will be working with or within the organisation, and is intended to complement the more comprehensive 'TTCP 201' guidance document. While this 101 is an accurate guide, it does omit many details and TTCP 201 (of which more later) should always remain your definitive authority on how to work within TTCP.



## 2. HISTORY

---

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.”*

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 (TTCP)**.

As a result, the WWII-era **Combined Policy Committee (CPC)** was reconstituted and the Subcommittee on **Non-Atomic Military Research and Development (NAMRAD)** was established. It comprised the heads of defence research and development organisations in Canada, the UK and the US. Australia joined the NAMRAD Subcommittee in 1965 and New Zealand joined in 1969, at which point the organisation governed by the Subcommittee was renamed **The Technical Cooperation Program (TTCP)**.



### 3. OBJECTIVES & SCOPE

---

The aim of TTCP is to foster cooperation within the science and technology areas needed for conventional (i.e. non-atomic) national defence. The purpose is to enhance national defence and reduce costs. To do this, it provides a formal framework which scientists and technologists can use to share information amongst one another in a quick and easy fashion.

Collaboration within TTCP provides a means of acquainting the participating nations with each other's defence research and development programmes so that each national programme may be adjusted and planned in cognisance of the efforts of the other nations. This process avoids unnecessary duplication among the national programmes, 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.

TTCP's centre of gravity is in the **Applied Research** domain, but it also encompasses **Basic Research** and **Technology Development** activities. The scope includes the exploration of alternative concepts prior to development of specific weapon systems, collaborative research, sharing of data, equipment, materiel and facilities, joint trials and exercises, and advanced concept technology demonstrations. Cooperation within TTCP often acts as the catalyst for project-specific collaborations further down the equipment acquisition path.



## 4. RELATED ORGANISATIONS

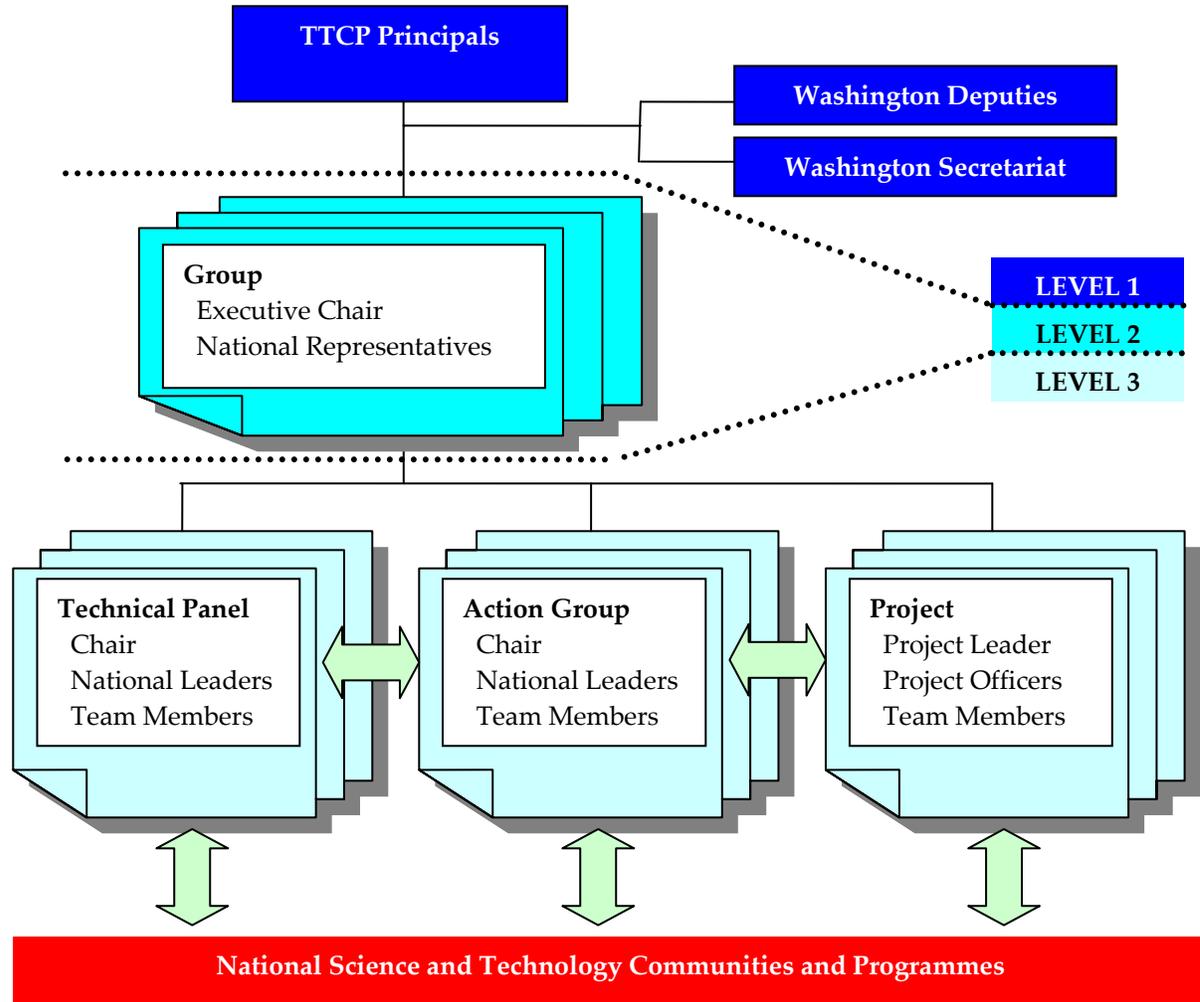
TTCP is one of a number of collaborative fora that facilitate collaboration and interoperability, each of which has a unique focus. Collectively, these bodies are known as the **Multifora**, and representatives of each fora work together to coordinate activities and prevent duplication. The main organisations are described below:

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



## 5. STRUCTURE

TTCP is a hierarchical structure, with three basic levels:



### Level 1

**Level 1** is the strategic policy level and comprises three groups of personnel: the **Principals**; the **Deputies**; and the **Secretariat**. Each nation has one representative to each of these groups, with the exception that the Australian Deputy also acts as the New Zealand Deputy. The Principals make up the **NAMRAD Subcommittee**. The Deputies and Secretariat are all based in Washington, DC, and collectively form the **Washington Staff**. Some nations also nominate one or more **Executive Support** staff to assist the Principals.



## Level 2

**Level 2** is the programme planning and oversight level and currently contains 11 **Groups**, each focused on a particular technology or systems area. The Groups, which have a three-letter designator, contain an **Executive Chair** (EC, appointed from any one of the nations), up to five **National Representatives** (NRs, with one from each nation, although the EC may also act as a NR) and a number of **Technical Advisors** (TAs, if required by the National Representatives). Finally, each Group has one Deputy assigned to act as its **Group Counselor** (GC), who works with the Group to help communicate the Principals' strategic direction. The Groups are:

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

## Level 3

**Level 3** contains the bodies that sit under each Group (and actually perform the collaborations). There are three types: the semi-permanent **Technical Panels** (TPs); the temporary **Action Groups** (AGs); and the discrete **Projects**. Technical Panels are designed to manage a continuing programme of work and will generally oversee a number of subordinate activities (each Group uses different terminology for such tasks). Action Groups are initiated to investigate a specific issue and on completion will recommend if and how any further work on the subject should be undertaken on a more permanent basis. Projects, which are governed by Project Arrangements (PAs), are a more binding form of cooperation, used to support a specific programme or a collaboration.

Technical Panels and Action Groups have one formal **Chair**, drawn from one of the nations, plus one **National Leader** (and the Chair may be double hatted as a National Leader) and a number of **Team Members** from each participating nation. Not all nations participate in all TPs or AGs. The majority of personnel



involved in TTCP operate at or in support of Level 3. Group structures at Level 3 can and should evolve to remain topical and useful. Groups have the authority to initiate and terminate TPs and AGs at any time, although the changes must be notified to the Principals at their next annual meeting.

## **Pan-TTCP Activities**

Whilst management of Level 3 bodies is hierarchical via Groups, significant **cross-boundary** work should and does occur. Action Groups and Project Arrangements often span a number of Groups (although there will be a designated lead Group), whilst Technical Panels commonly have liaisons with other Technical Panels, both within their parent Group and within other Groups. Such interchange is strongly encouraged.

For major cross-cutting projects, dedicated **pan-TTCP Initiatives** are sometimes formed. A good example of this is the Initiative on Network Centric Warfare, which affects every group and is therefore managed as an entirely independent body (in this instance, led by a Deputy and supported by representatives of each Group).

## **Supporting Personnel**

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, and are every bit as important to TTCP as those occupying the formal posts.



## 6. MANAGEMENT

---

TTCP operates by sharing the output from national science and technology programmes for the greater benefit of the participating nations. It is therefore fundamentally a bottom-up organisation, with collaborations only occurring where national programmes and a willingness to cooperate already exist. The role of the Principals and National Representatives in managing TTCP therefore takes two forms: directing collaborations within areas where suitable national programmes already exist; and directing their own national programmes in order to provide the basis for future TTCP collaborations. TTCP is thus a 'best endeavours' organisation and can only be as good as the underpinning national programmes.

If you think that TTCP might be a useful vehicle for a collaboration that you wish to start, you should contact the Secretariat or the relevant National Representative / National Leader (if you know who they are) for advice. They will be able to suggest how best to incorporate the work into an existing or new TTCP activity, if appropriate.



## 7. PARTICIPANTS ROLES & RESPONSIBILITIES

---

### Level 1

The **TTCP Principals** are responsible for TTCP policies, priorities, organisation and procedures. This includes designating the technical scope of TTCP, approving Group Terms of Reference and appointing Executive Chairs.

The **Deputies** perform day-to-day management of TTCP on behalf of the Principals. This covers liaison with the Groups to communicate Principals' direction and resolve issues, and coordination between the Groups. Many of these tasks are performed through the Deputies' role as **Group Counsellors**, by which each Deputy acts as a dedicated advisor to a few Groups. The current allocation is:

Group	Group Counsellor
AER	United Kingdom Deputy
C3I	United States Deputy
CBD	Canada Deputy
EWS	Australia & New Zealand Deputy
HUM	United States Deputy
JSA	Australia & New Zealand Deputy
LND	United Kingdom Deputy
MAR	Canada Deputy
MAT	Canada Deputy
SEN	Australia & New Zealand Deputy
WPN	United Kingdom Deputy

The **Secretariat** do the legwork for the Deputies, which includes supporting meetings, maintaining core documents and websites, assisting Groups with administrative issues and any other odds and sods. If in doubt about any issue, the Secretariat should be your first port of call.

Deputies sometimes appoint national **Washington Contact Officers** (WCOs) to each Group. They act as a US-based focus points to facilitate national participation in each Group.

To assist with their duties, the Principals, Executive Chairs and (occasionally) National Representatives may employ the services of **Executive Supports** (for Principals) or **Executive Assistants** (for Executive Chairs and National Representatives). Their role is essentially to shoulder some of the management and administration burden for their superiors.



## Level 2

The **Executive Chair** heads a Group. He is responsible for Group meetings, the technical program, management oversight and communications between the Principals and his Group. He must also prepare the Group annual report, award proposals and other documents (by 31 July each year).

Group **National Representatives** manage and coordinate national participation in each Group. They also, together, formulate the technical program for the Group and oversee the Level 3 bodies to ensure that the Group executes the required programme.

**Technical Advisors** 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 are used to allow a number of agencies to be represented.

## Level 3

The **Chair** (for TPs and AGs) or **Project Leader** (for PAs) is responsible for planning, managing, executing and reporting (in concert with the National Leaders) their group's tasks. They also act as the liaison between their National Leaders and the Group's Executive Chair.

The **National Leaders** (for TPs and AGs) and **Project Officers** (for PAs) are the Level 3 equivalents of the National Representatives. In concert with their Chair, they plan, manage, execute and report on their body's tasks. Nationally, they arrange for the proper people and resources to be assigned to the work, including the assignment of any necessary Cooperative Program Personnel (see below for details). They are also responsible for channelling information back to their national communities.

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.

To support TTCP work, employees of one nation can be assigned to work on a TTCP activity within the organisation of another nation, as **Cooperative Program Personnel** (CPP).



## 8. MEETINGS, REPORTS & PUBLICATIONS

---

### Annual Cycle

TTCP operates on an annual cycle, anchored by the yearly meeting of the Principals (known as **NAMRAD** and typically held around October). This is the point at which the Principals provide strategic direction to TTCP, by reviewing the Groups' programmes, issuing guidance on their future direction and addressing overall TTCP management issues.

In advance of the NAMRAD meeting, each Group will hold its own annual meeting (generally between May and July), whilst Level 3 bodies meet as required throughout the year. NAMRAD is typically hosted by each nation on a four-yearly cycle, with Australia and New Zealand jointly hosting one leg. **Group Annual Meetings** generally also rotate through different nations, but there is no formal requirement for this and the choice of venue is left to the discretion of the participants. The approximate annual cycle is given below:

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

### Reporting Requirements

This cycle drives the TTCP reporting requirements. At NAMRAD, the Executive Chairs are required to present their programmes to the Principals, including their proposals for future work and any requests for guidance. In preparation for this meeting, a **Briefing Book** is prepared by the Secretariat for all attendees (namely the Principals, Deputies, Executive Chairs and Secretariat). This Briefing Book is generally circulated at least one month prior to NAMRAD (to allow national staffing) and draws heavily on the Group Annual Reports.



Each Executive Chair is required to submit three main items to the Secretariat by 31<sup>st</sup> July: a short **Group Annual Report** (including updated **Terms of Reference** for the Group and other supporting information); any proposals for **Team** and **Personal Awards** (as TTCP acknowledges excellence in collaborative defence S&T); and Group updates to the personnel **Roster**. During August, the Washington Staff will incorporate these reports and award proposals into the Briefing Book, along with recommendations for action by the Principals.

One of the purposes of the Group Annual Meetings is to assist the Executive Chairs in producing this information for the Principals. The Groups TPs and AGs will typically be commissioned by the Group to produce their own reports in a reasonable timeframe prior to the Group meetings. The Group meetings themselves last between two and five days, and are attended by all Level 2 participants. Typically, a representative of each TP and AG will attend relevant portions of the meeting, to present the work of their group. To save costs, it is normal that these representatives are drawn from the host nation where possible.

## **Report Guidance**

Templates and guidance for all these reports can be found in TTCP 201 and on the TTCP websites. Also, the Washington Staff can provide advice if required.

## **Awards**

The TTCP Principals issue annual team and personal awards for excellence in collaboration. A number of teams will receive awards in any one year, as a result of outstanding performance on a specific activity. Personal awards are more scarce and used to recognise exceptional individual contributions to TTCP over a period of time. Awards are proposed and submitted by Groups to the Principals.

## **Publications**

TTCP issues three styles of formal publications: **Documents**, **Technical Reports** and **Limited Release Technical Reports**. Documents address management issues, while Technical Reports are used to convey the output of research work. Details on when and how to use each type of publication are available in TTCP 201. All TTCP publications should be copied to and available from national document repositories.



## 9. CLASSIFICATION & COMMUNICATONS

---

Whilst the majority of TTCP's work is at low levels of classification, information at up to **Secret** level is routinely exchanged and this can be extended to **Top Secret** under certain circumstances. TTCP currently uses three internet-based systems and one classified system to assist trans-national communication. As much TTCP work does have some level of sensitivity attached, even if it is nominally 'unclassified', the secure systems should be used in preference to unprotected email where appropriate. These systems are outlined below.

### TTCP Website (Public Website)

The TTCP **Website** is a publicly accessible website at <http://www.dtic.mil/ttcp/> ([Control + Click here for Website Link](#)) which provides an **unclassified** overview of TTCP, its roles and its management. Sensitive material cannot be placed on this site.

### TTCP Webmail (Secure Email)

The TTCP **Webmail**, a dedicated TTCP SSL-protected web-based email system, is available at <https://ttcp.dstl.gov.uk/horde/> ([Control + Click here for Website Link](#)) to enable personnel to exchange '**unclassified but sensitive**' information (essentially data corresponding to the US 'For Official Use Only' caveat). To register for an account, go to the site and complete the registration form. Your national Secretariat member will send you a user name and password within a few days.

### TTCP Portal (Secure Website)

An SSL-protected Web **Portal** is the primary vehicle for TTCP communications, allowing users to store, share, develop and discuss '**unclassified but sensitive**' work more efficiently. The website contains working areas for each body and activity. It is also the definitive TTCP reference site, including guidance, templates and the like. In due course, this system will also incorporate the TTCP Webmail function. The Portal is available at <https://www.ttcp.drdc-rddc.gc.ca> ([Control + Click here for Website Link](#)). To register for an account, go to the site and complete the registration form. Your national Secretariat member will send you a user name and password within a few days.



## **Griffin (Secret-High Email)**

TTCP personnel can also make use of the **Griffin** network, which connects the Secret-level email systems of the five nations and thereby allows the transmission of information classified at up to **Secret** between group members. You will need to apply for an account through national channels. Your national Secretariat member can point you in the right direction.

## **National Document Repositories**

All TTCP publications should be sent to and available from national defence document repositories. The identity of these repositories is given in TTCP 201.

## **TTCP Caveats**

TTCP information usually carries release caveats. These can be found in TTCP 201 and generally restrict the use of the information to Defense Purposes within the five member nations.



## **10. SOURCES OF FURTHER INFORMATION**

---

### **Memorandum of Understanding (MoU)**

TTCP is enabled by its MoU, which describes what can and cannot be done under its aegis. However, the MoU is written in legalese and, as such, does not provide a useable guide to TTCP operations, policies and procedures. You should instead use TTCP 201 for all such queries.

### **TTCP 201 (formerly POPNAMRAD)**

The definitive document for working in TTCP is **TTCP 201**. This is designed to address all aspects of how TTCP functions, what TTCP can and cannot do, and how you go about doing it (and includes various templates for reports and the like). It is effectively an extended translation and interpretation of the MoU. If you come across any inaccuracies or have suggestions for improvements, please let one of the Secretariat know, so that we can amend it!

### **Secretariat**

The Washington Secretariat members are here to help, so please don't hesitate to get in touch with us (via the contact page on the TTCP Public Website or via the contact information on the TTCP Portal) if you need assistance or advice on any aspect of TTCP. Likewise, please let us know if you've got ideas for improving any part of TTCP.

### **National Staffs & International Programmes Offices**

National Staffs / International Programmes Offices generally take the lead in the preparation of formal agreements such as Project Arrangements and are the definitive source of advice on these matters.



## 11. INDUCTION PROCESS

---

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 this **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).

*Published by the Washington Secretariat on behalf of the NAMRAD 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.*