A FORWARD-LOOKING ASSESSMENT
OF THE TECHNICAL CO-OPERATION PROGRAMME
OF THE INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO)

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TABLE OF CONTENTS

EXECUTIVE SUMMARY
I. INTRODUCTION
II. POLICY AND PROGRAMME ISSUES
   A. Competitive Attitude
   B. Programme Strategy
   C. Evaluation, Review and Follow-up
   D. Programme Guidance and Leadership
III. OPERATIONAL AND ORGANIZATIONAL ISSUES
   A. Organizational Strategy
   B. Integration between Regular Programme and Technical Co-operation Programme
      1. Single Budget
      2. Cost-measurement system
      3. Technical Co-operation Task Forces
   C. Proposals for Restructuring
      1. Planning, Programming and Analysis Capacity
      2. Operational Flexibility
      3. Operational Support Section
      4. Suggestion for Future Organogram of Technical Co-operation Bureau
IV. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS
Annex 1: Components of Support Costs as Identified by JIU (JIU/REP/77/6)
Annex 2: New UNDP Support Cost Arrangements
Illustrative List of Services
Annex 3: Outline of New Organizational Structure for Technical Co-operation
Notes
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOSCF</td>
<td>Administrative and Operational Services Cost Fund</td>
</tr>
<tr>
<td>CAPS</td>
<td>Civil Aviation Purchasing Service</td>
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<td>C/ADM</td>
<td>Chief of Administration</td>
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<td>C/FRU</td>
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<td>C/PBO</td>
<td>Chief of Programme Budget Office, TCB</td>
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<td>Danida</td>
<td>Danish International Development Agency</td>
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<td>ECA</td>
<td>Economic Commission for Africa</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>Field Operations Branch</td>
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<td>headquarters</td>
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<td>International Air Transport Association</td>
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<td>Indicative Planning Figure</td>
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<td>International Telecommunication Union</td>
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<td>Technical Assistance Bureau</td>
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<td>Technical Co-operation Bureau</td>
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<td>technical co-operation</td>
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<td>TCDC</td>
<td>Technical co-operation between developing countries</td>
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<td>Technical Officer (regular programme)</td>
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<td>TSS</td>
<td>Technical Support Services</td>
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<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees, Office of the</td>
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<td>UNIDO</td>
<td>United Nations Industrial Development Organization</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>World Intellectual Property Organization</td>
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EXECUTIVE SUMMARY

The Council of the International Civil Aviation Organization (ICAO) requested the Joint Inspection Unit to make an urgent review of its technical cooperation programme. The first part of this review, a report issued in October 1991, assessed the operating deficits in the programme and offered possible solutions. This report concentrates on actions needed to ensure a strong and effective ICAO technical cooperation programme for the future.

International technical cooperation activities have recently undergone major changes. New requirements for planning, funding, and implementing programmes and projects are being introduced. Many competent organizations are eager to provide development services and expertise in all fields. And rapid, continuing politico-economic changes are having dramatic and substantial impacts in all international sectors, including civil aviation.

The technical cooperation activities of ICAO have not yet responded to all these fundamental changes. ICAO's own reviews have acknowledged that ICAO has not yet related its technical co-operation efforts to its overall objectives and organizational structure, prepared a strategic action plan, developed a more imaginative and competitive outlook, or changed management practices and attitudes in its technical co-operation work.

ICAO has considerable skills and capacities to assist all its contracting States to play a full role in a safe, orderly, and interdependent international civil aviation system. But ICAO is only one of many organizations - international, governmental, non-governmental, and private - competing for scarce funds to meet urgent development needs in civil aviation, and civil aviation is in turn only one of many competing economic and social sectors with urgent needs.

To achieve its overall objectives and strengthen international civil aviation, ICAO must above all demonstrate through high-quality performance that it can respond effectively to new challenges and needs, and that its technical co-operation programme and services deserve increased funding support.

The Inspector recommends, first, a cluster of improvement actions at the policy and programme level. ICAO should:

-- systematically develop a much more competitive attitude to drive its technical co-operation work;

-- prepare and adopt a basic programme strategy;

-- establish a firm evaluation and review process to enhance programme quality; and

-- develop substantive reporting and review processes in its new Technical Co-operation Committee.

A second set of actions should match the above new strategy and processes with more dynamic and flexible structures and systems that help ICAO staff and performance to keep on improving. ICAO should:
— integrate regular programme and technical co-operation activities;

— streamline Technical Co-operation Bureau activities, in order to concentrate on technical co-operation work rather than general administrative and operational work;

— enhance planning, programming, and analytical capacity;

— increase organizational flexibility; and

— balance all these structural adjustments with full consideration of the interests and concerns of the ICAO staff who will implement them.
I. INTRODUCTION

1. In April 1991 the Council of the International Civil Aviation Organization (ICAO) requested the Joint inspection Unit (JIU), as a matter of urgency, to include in its 1991 programme a review of the Technical Co-operation Programme of ICAO. Specifically, the Council requested JIU to

"make an in-depth review, evaluate, comment and make recommendations, both short-term and long-term, on the management, financing and operation"

of the programme, including examination of operating deficits; cost allocations, cost measurement, and forecasting; and the efficiency and effectiveness of the Technical Co-operation Bureau (TCB) and other offices and units of ICAO involved in the technical co-operation programme.

2. Because of the importance and complexity of the subject and the tight time schedule involved, the Inspector decided to prepare two reports. The first, presented to the Council in October 1991, assessed the annual deficits of the Administrative and Operational Services Cost Fund (AOSCF). It provided an overview of the technical co-operation (TC) programme of the past decade; reviewed and analyzed the deficits, which have increased fairly steadily and have become more and more pressing each year since 1983; and discussed the factors which have contributed to them. JIU presented several possible short-term solutions, and recommended five specific actions to deal with the deficit problem.

3. The first JIU report also concluded that ICAO must act to ensure that its future TC programme will fulfil ICAO TC objectives and purposes while avoiding the problems of the past: that is, ICAO must establish a more flexible, efficient and effective TC organization geared to operating in a complex and rapidly changing global TC environment. JIU cited major long-term considerations that had been stressed in recent ICAO studies (those of the Working Group of the Whole, the "Brown report", and the Internal TA Task Force): responsiveness, competitiveness, restructuring, organizational planning and strengthening, computerized administrative systems, and the "core staff" concept.

4. This second JIU report concerns itself with these longer-term issues. In conducting the study, the Inspector reviewed all available budgetary, work programme, annual, status, review, evaluation and other relevant reports and documentation on the TC programme for the last decade, as well as internal procedural guidance and about 35 recent project evaluations, surveys, and studies. Between June 1991 and January 1992 she conducted more than 60 interviews with ICAO Council members, senior secretariat staff, TCB section and unit heads, and officials of other organizations, during three missions to Montreal, visits to the ICAO regional offices in Bangkok and Nairobi and two missions to United Nations Development Programme (UNDP) headquarters in New York. She also gathered information from organizations with similar programmes in Geneva: the International Air Transport Association (IATA), the International Telecommunication Union (ITU), and the World Intellectual Property Organization (WIPO).

5. The Inspector is grateful to all those involved for the very constructive dialogue she had with them, and the useful ideas, information, data and perspectives which they provided.

6. As the study progressed, it became clear that the annual AOSCF deficits are only a symptom of more fundamental problems. For some 40 years ICAO has organized and implemented a series of efficient, competent civil aviation TC projects and fellowships around the world. However, during the past several years there have been dramatic and rapid changes in the environment and process of international
technical co-operation for development (and in global civil aviation as well). This has resulted in a vastly more complex and competitive situation for all the participants, including all United Nations system agencies and not least UNDP, which no ICAO TC programme relies or so heavily.

Apparently because of its past project successes, the ICAO TC programme has not yet developed the strategic thinking and programme initiatives that it needs to meet the challenges of the 1990s and beyond the year 2000. A recent JIU review disclosed three key problems which not only make a proper evaluation of existing TC activities very difficult, but also seriously hamper ICAO’s ability to adapt these present activities to new circumstances:

(a) ICAO TC continues to be a collection of individual projects, which do not add up to a coherent TC programme with well-defined objectives and a clear strategy for achieving them.

(b) Programme assessments, evaluations, and audit reports on TC have been limited to individual projects or relatively narrow procedural matters. They have not provided ICAO decision-makers with the information on programme performance, problems, and opportunities which they need to make policy and programme improvements.

(c) Management processes are being closely scrutinized to improve efficiency and cut costs, but they have not been considered in terms of how they might best ensure a coherent and responsive TC programme structure for the future.

ICAQ must urgently address these basic problems if it is to establish a strong TC programme for the 1990s. The Inspector therefore decided not to dwell on past project performance, or to discuss again many of the staffing, cost, and procedural matters covered in detail in the recent reviews cited in paragraph 3 above and also considered in the above-mentioned first JIU report of October 1991.

Instead, this report can be most useful to ICAO by highlighting actions needed to establish and maintain a dynamic TC programme that can properly foresee and respond to rapid continuing changes in global civil aviation and in related TC needs. With this goal in mind, Chapter II following discusses four critical components needed to establish and maintain a sound overall programme process for ICAO TC work. Chapter III identifies measures to better utilize the considerable substantive and managerial resources of ICAO in this re-organized TC programme, and Chapter IV summarizes the Inspector’s conclusions and recommendations.
II. POLICY AND PROGRAMME ISSUES

10. To enable its TC programme to meet the many external challenges of the future, ICAO should establish four central programme elements. First, it needs to systematically develop a much more competitive and responsive attitude to guide its technical co-operation work. Second, it must formulate and apply a basic programme strategy to best apply its scarce resources to priority TC needs and opportunities. Third, it should finally fill the long-frozen Evaluation Officer post, as part of a firm follow-up process to use performance data to ensure a high-quality programme. And fourth, ICAO needs stronger senior management and Council guidance and leadership to steadily improve the entire TC programme.

11. The advantage of a slow start in reform efforts is that an organization can benefit from the hard-won experience of other organizations. The Inspector refers - particularly in this Chapter - to recent studies of TC performance and relevant actions and initiatives taken by TC programmes very similar to those of ICAO. Primary attention is given to new policies and actions underway in UNDP, since UNDP provides the majority of ICAO TC funding, and since the present ICAO TC system is modelled so closely on UNDP procedures and requirements.

A. Competitive attitude

12. In 1988 the UNDP Governing Council requested the Administrator to examine UNDP's capacity to respond to the changing world development challenges of the 1990s. The resulting report, based on extensive consultations inside and outside the United Nations system, concluded that UNDP and the executing agencies should provide more catalytic, responsive and high-quality services to help build national capacities and better help governments manage development. The Governing Council endorsed this general theme of bolstering self-reliance. It has since continued to establish significant new policy directions of great importance to ICAO and other executing agencies, as noted in the following sections.

13. A landmark resolution of the United Nations General Assembly in December 1989 reaffirmed the guiding role of recipient countries in development, and the need for United Nations system organizations to better respond to their particular needs. The General Assembly urged agencies to restructure and improve country level operations, shift from project to programme approaches, and improve and ensure full accountability for development activities, especially through a reorientation towards national execution and a more programme-oriented approach. It further requested firm follow-up reports on these matters.

14. A number of ICAO documents have followed the progress of these very significant policy changes. A 1989 working paper on implications of the UNDP "1990s" study expressed concern about the difficulties that ICAO could face if it had to bid competitively for execution of development projects. A February 1990 assessment of UNDP's proposed new support cost arrangements for executing agencies recognized that the proposals reflected major changes in the partnership and support services relationships between UNDP, governments and executing agencies such as ICAO, but it concentrated on the severe financial pressures which reduced UNDP payments could place on TCB operations. The "Brown report" of May 1990 urged ICAO to better employ both regular programme and TCB resources in a strong TC programme which could attract additional funding, adjust to a much more competitive TC environment (or risk being left out), and stand ready to make further fundamental changes to respond to rapidly changing development realities.

15. Another ICAO report in October 1990, on the future role of the ICAO TC programme, noted that the evolving UNDP concepts (national execution, expanded UNDP technical support services, competitive bidding, new support cost arrangements, and agency cost-sharing) could lead to major changes, many
of which were inevitable, and which could have a significant impact on ICAO's own activities. However, although the report stated that contingencies would have to be formulated and plans drawn up in anticipation of these major changes, its proposals concentrated primarily on structural and administrative changes within the TCB to improve efficiency and cut costs.

16. The ICAO Council then formed a special Sub-Working Group on technical assistance in November 1990, to consider the long-term objectives, effectiveness and finances of the TC programme. The Group reported in February and March 1991 that it had been unable to consider the policy, future financing, and operational effectiveness issues, because the financial (deficits) problem had become so critical. But the Group did state its belief that "a more positive, imaginative and competitive outlook will have to be adopted", and that changes in management practices and attitudes would be an "essential prerequisite" if the ICAO TC programme is to flourish in the future. The Council then decided to request JIU to carry out this study.

17. From the vantage point of early 1992, it is clear that the major changes in the "old ways of doing things", as foreshadowed in the 1988-1989 UNDP documents and in the subsequent ICAO papers, have come to pass and are continuing to evolve at quite a rapid rate. The drastic operational changes now underway are summarized by reports and decisions of the thirty-eighth session of the UNDP Governing Council in 1991. They stressed the pursuit of national execution as the "ultimate modality", new support cost arrangements to provide strong programme and project technical support services, and the need to enhance the quality, openness, and competitiveness of UNDP-assisted programmes.

18. Unfortunately, ICAO policy-makers have been preoccupied with measures to cut the AOSCF deficit and to streamline current operations. A parallel effort to mobilize ICAO's considerable intellectual experience and resources to provide it with a fully competitive and responsive TC programme for the 1990s has not yet really begun. Although the challenge seems (and is) rather daunting, there are recent experiences and examples which can help ICAO to establish the new TC attitude and approach which it needs.

19. In January 1992 (almost simultaneously with completion of this study), the JIU issued a report entitled "United Nations system co-operation with multilateral financial institutions", which is being submitted to ICAO and all other participating organizations of JIU for action. The report observes that the technical co-operation field which the United Nations system formerly dominated is now crowded with many very active and competent participants: the international and regional development banks, development consulting firms, national research organizations, non-governmental organizations, foreign direct investors, and more critical and demanding donor and recipient governments. In addition, there are many pressing new factors and issues in development: "human resources development", "structural adjustment", "institution building", "sustainability", "national execution", "democratization", "popular participation", "privatization", new technologies, major political and economic shifts, tight resource constraints, and urgent new refugee and humanitarian needs.

20. JIU found in its research that the key factor in improving co-operation among development organizations is performance. If the organizations involved have high-quality programmes and can deliver them promptly and efficiently, a mutually beneficial partnership can begin and continue. But the many sources that JIU consulted emphasized that the drastic changes noted above also present an urgent and fundamental challenge to the operational activities of United Nations system agencies. As one veteran development assistance official bluntly put it, the organizations must "change or die" and they must keep changing.
21. From discussions of these issues with more than 100 international development officials, the JIU derived a list of ten important factors which enable organizations to establish more effective co-operation with other development organizations (and to enhance their own technical co-operation success in the vastly more competitive development field which now exists):

1. **Performance**: timely, effective delivery of a needed service;
2. **The niche**: identification or development of an area of comparative advantage;
3. **Value-added requirement**: addition of a value which others cannot match;
4. **Pragmatic relationships**: concentration on meaningful co-operative contacts at appropriate levels;
5. **Strategic approach**: formulation and articulation of a soundly conceived approach to development;
6. **Market-oriented outlook**: flexible responsiveness to clientele needs;
7. **Organizational flexibility**: action-oriented and adjustable organizational structure;
8. **Factual self-promotion**: realistic publicity concerning capabilities and accomplishments;
9. **Competitiveness**: constant performance improvement;
10. **Quality control**: concentration on results.

22. Two other very recent, in-depth studies of TC programmes also stress the importance of developing a strong competitive attitude based on performance, responsiveness, and continual improvement. A final report by the Nordic UN project, drawn from 18 earlier reports on United Nations system operational activities, observed that these activities had evolved in an ad hoc way from earlier “political assembly” functions, and are now ripe for thorough analysis and reform. The report recommended many actions to strengthen operational quality and impact in the organizations. It urged the organizations to better define their individual roles, improve their own performance, concentrate on their areas of comparative advantage, and emphasize and improve their advisory and analytical functions as “centres of excellence”.

23. A second set of 11 reports, prepared for the Danish Government, analyzed the effectiveness of multilateral assistance agencies - both United Nations system and non-UN system - at the country level, to enable better analysis, monitoring and improvement of their performance. This study also stressed the need for each agency to better utilize its comparative advantage, and to increase programme transparency, cost-effectiveness, and impact. It recommended that agencies “concentrate on what they do best”, and give more emphasis to country strategies, appropriate staffing in the field, and open policy dialogue to ensure more effective co-operation in the 1990s.
24. An excellent example of an agency’s beginning to put these new policy guidelines into practice is provided by the International Telecommunication Union (ITU). Like ICAO, it is a smaller, highly technical, specialized agency which relies heavily on UNDP to fund its development activities. Also like ICAO, its Administrative Council requested JIU in 1986 to review its technical co-operation activities to consider deficit financing problems (as in ICAO, there was no regular budget financing) and operational improvements. In 1984 an independent commission of experts had reported on ways in which ITU could stimulate the expansion of the worldwide telecommunications network, particularly in developing countries. In 1991 another high-level group reported on ITU’s structure and functioning in light of a changing telecommunications environment: it noted that the ITU Plenipotentiary Conference of 1989 had given “Development” equal status with Standardization and Radiocommunication in the substantive work of ITU, and it re-emphasized the importance of ITU development work.

25. In 1989 the ITU Plenipotentiary Conference had already established a new Telecommunications Development Bureau, to replace the old Technical Co-operation Department and provide ITU with a more active role and expanded scope of action for telecommunications development worldwide. A 1991 ITU publication clearly shows this new Bureau’s strong competitive attitude. It begins with the statement of the Secretary-General that

"the very purpose of the [Bureau is] to be your partner, at your service for the development of telecommunications worldwide".

26. The ITU publication emphasizes that the Bureau represents not only an executing agency for projects financed by UNDP, but a specialized agency that continually analyses global telecommunications status to advise Member States on telecommunication development policies, standards, and programmes. It summarizes ITU’s advisory services, sectoral studies, planning skills and telecommunications data-bank, and notes that the ITU regular budget now provides a considerable portion of the total funding for the Bureau’s activities. It discusses its new Resource Mobilization Unit, which seeks to raise and co-ordinate additional resources, summarizes major ITU categories and types of development activities at country and regional levels, and ends with an invitation to readers to send in a tear sheet for further information on the Bureau and its development activities in any of 12 topic areas. ITU recognizes that this very positive competitive and service attitude is only a starting point that must be sustained by high-quality performance, but it has taken the first steps quite decisively.

27. The underlying theme of this approach is all about the development of the sector (for ITU it is telecommunication and for ICAO international civil aviation) on a global scale, in particular the developing countries where most development is needed, as part of the overall, integral work in the sector. This concept of development is a much more comprehensive one, in which TC - in its traditional and current form - is only one of the means or approaches in promoting the development of the particular sector to the established standards.

28. This notion clearly shows the inherent and unavoidable rationale for conceptually considering development to meet the regulatory requirements as one of the main purposes of ICAO, if not the main one. Following from this, there should be no conceptual distinction between regular programme (e.g. regulatory aspects) and TC (broadened to the comprehensive concept of development).

29. As the ITU example and the new JIU report on co-operation with multilateral financial institutions indicate, a significant element of a strong competitive attitude is to reach out to other participants to establish co-operative, mutually beneficial development activities. The major new emphasis on "national execution" of TC projects funded by UNDP will highlight even more the need for ICAO and other executing agencies to increase their collaborative TC work. In addition, ICAO needs to consider:
(a) The possibilities for enhanced civil aviation TC work in conjunction with the transport sector efforts of the World Bank and the regional development banks, and with other civil aviation organizations, beyond the tentative and limited success to date 22.

(b) Closer work with the United Nations regional commissions (recent annual reports of the Economic Commission for Africa, for example, discuss ECA's very active role in air transport development throughout Africa and with various African civil aviation organizations, with almost no mention of ICAO activities 23).

(c) Whether, like ITU, it should establish a Resources Mobilization Unit, or at least a Resource Mobilization Officer, to develop funding sources and co-operative partners on a systematic basis, rather than the informal and ad hoc approach used at present.

30. In sum, ICAO is now, unavoidably, one among many organizations competing in many sectors to attract scarce international development resources to apply in a rapidly-changing global environment. Its future success in advancing international civil aviation will be determined in large part by the way in which it responds to this challenge. The Inspector recommends, from the new JIU report on co-operation with multilateral financial institutions 24, that ICAO take the following actions to more systematically foster creativity, responsiveness, sustained performance improvement, and other elements of a competitive posture in its technical co-operation programme:

(a) an adequate allocation of resources;

(b) an explicit priority given to deploying personnel to participate in co-operative programmes;

(c) a planning effort to identify ways to improve performance; and

(d) a review and evaluation process to measure results accurately and feed findings back into these allocation, deployment and planning processes.

31. To properly implement this urgently needed process of enhancing its competitive potential, the Inspector believes that ICAO must also develop three other essential elements which presently do not exist. They are: a clear, articulated programme strategy; stronger evaluation, review and follow-up processes; and a much more dynamic governing body oversight process of the TC programme.

B. Programme strategy

32. The United Nations General Assembly, as mentioned previously, has urged agencies to shift from project to programme approaches, and others have made the same point. The Nordic project final report, for instance, also urged the agencies to increase their analytical capacity and advice to governments, while decreasing their role in the administration and implementation of projects 25.

33. The 1991 Danish study concluded that the existing preoccupation of specialized agencies with managing many small projects, or "projectitis", has serious negative effects. It leads to unrealistic project designs and objectives, a lack of priority-setting, specialist skills diverted to "selling" projects, and scarce government resources scattered among many small project organizations. Instead, the report argued that the specialized agencies should be helping to build national capacities, in a long-term, flexible partnership using an international specialist network to support a few key institutions or programmes in each country, and to advise periodically on country strategies and programmes 26.
34. The Governing Council of UNDP reaffirmed in 1991 that the new support cost arrangements are intended to increase government management of United Nations financed programmes, competitiveness, and agencies' technical support service quality, while minimizing their administrative and operational support functions. The new arrangements began in January 1992 for the five largest executing agencies, with transition arrangements for the others to follow. 

35. The new arrangements call for a major strengthening of technical support efforts from both agency regular programmes and UNDP-funded activities at the programme and project levels in developing countries. They place strong emphasis on national programme frameworks, sectoral and sub-sectoral studies, country programmes, and advisory services, ad hoc assistance, and enhanced monitoring and review (see also Annex 2 of this report). UNDP has also cited the basic relationship between programme approach and national execution, and the need for more programme-oriented mechanisms in technical co-operation to better support national programmes.

36. Unfortunately, ICAO has not yet formulated a basic strategy that will enable it to develop and implement a sound programme approach. The October 1990 report on the future of the ICAO technical co-operation programme acknowledged that

"ICA O's own [technical co-operation] programme grew in parallel to that of the United Nations and although monitored by Council no attempt to relate the programme to the overall objectives of ICAO was ever given serious consideration. For many years the programme was able to operate on its own but now that financial conditions have changed it is timely to take a much closer look at the purpose of this programme, and if found to be part of the objectives of ICAO as Mr. Brown states in paragraph 19 of his report, to integrate this programme in the overall structure and activities of the Organization."

37. ICAO's subsequent actions during 1991 to begin to develop a strategic action plan to meet the major challenges facing civil aviation are a very significant organizational initiative. Unfortunately, again, they omit the TC programme. Although a number of Member States and other organizations noted the need to consider TC issues and the needs of developing states in the strategy, they were not specifically identified as a priority challenge. In fact, instead of highlighting the need for a TC strategy, the May 1991 status report stated that development of a strategic action plan should not detract from the ongoing reassessment of the technical co-operation programme.

38. Existing documents in support of the TC programme do not clarify the purposes, priorities, initiatives, and approaches which are being employed to maximize programme effectiveness:

(a) the triennial and annual AOSCF budget estimates are confined to quantitative data and explanatory footnotes;

(b) the sections of triennial Work Programmes on the TC programme have only described the responsibilities of, and services provided by, TCB units, with little change in content over the past decade;

(c) the sections on TC in the Annual Reports of the Council have discussed activities in the regions, summarized the status of categories like experts and fellowships, and provided narratives on many individual projects, again with little change in format in recent years, and providing the reader with little understanding of programme direction and priorities;
(d) the draft ICAO Programme Budget for 1993-1995 is intended to focus much more on the objectives sought, work to be done, and results to be achieved in ICAO programmes. However, the section on the TC programme was still not available at the time this study was being completed.

39. There has been strategic thinking and analysis within ICAO, as in articles for the ICAO Journal and in survey documents prepared for UNDP programming exercises 33. Certainly, ICAO has the expertise and capacities to develop a sound strategy for future TC in civil aviation, but until now it has only been applied on an ad hoc basis. What is urgently needed is to establish a coherent strategy to guide the entire TC programme in the future.

40. A good example of an initial TC programme strategy is that of the International Maritime Organization (IMO). The IMO programme is very much like ICAO's: a smaller United Nations system specialized agency responsible for promoting and implementing standards and conventions for a global transport network of Member States, involving such major topics as navigation, training, legal and safety issues. Like ICAO, IMO requested a JIU review of its TC programme, to examine its major component - maritime training - and determine whether the programme was proceeding in the right direction and achieving IMO's objectives.

41. Concurrently with the JIU review, IMO issued an initial strategy for maritime training in 1988. The strategy presented:

(a) the rapid changes in international shipping, and the critical human element in operating this system;

(b) the related problems of developing countries, and IMO's mandates to promote implementation of existing international maritime standards in all areas of its work including its TC programme;

(c) the fundamental TC programme aim of promoting change through the transfer of maritime expertise and technology to enhance global maritime transport and therefore international economic growth;

(d) maritime training activities to be undertaken for specific target groups through an integrated training network, at the local, regional and global levels, with four phases of training (basic, certificate, specialized, and post-graduate);

(e) related IMO TC services, results achieved, and - most important - a statement of six priority areas for the future IMO maritime training programme 34.

42. The 1989 JIU report concluded that IMO had moved rapidly during the 1980s to re-shape what had been a thinly stretched collection of national projects, advisory services, and seminars into a network of training activities guided by global standards and the new maritime training strategy. Although the inspectors recommended that IMO should now concentrate on consolidating and strengthening this network, they commended IMO's foresight in moving beyond traditional project assistance activities to encourage regional networks, TCDC approaches, model training courses, the World Maritime University, and other new training institutions as part of a systematic worldwide maritime training structure 35.

43. ICAO might consider not only the IMO training strategy, but its relevance to the TRAINAIR programme 36, which might well be the central, or at least a very important part, of ICAO's own TC programme strategy. TRAINAIR is already based in part on the experience of similar programmes in ITU (CODEVTEL) and the United Nations Conference on Trade and Development (UNCTAD) (TRAINMAR).
However, the IMO training experience and that of the International Labour Organization (ILO) are also useful guides (and the extensive aviation training courses provided by IATA are particularly relevant to future ICAO training efforts). Both the 1989 JIU report on IMO and the 1991 JIU report on co-operation with multilateral financial institutions cited the ILO, IMO and UNCTAD programmes as innovative responses to worldwide training needs in the transport field, in accord with the international standards, agreements and conventions developed in each organization's substantive programmes.

44. These many existing training programmes lead to two final observations about a future TC programme strategy. First, the fact that basic responsibility for the TRAINAIR programme rests in the ICAO regular programme underscores the need for a proper TC programme strategy for ICAO to include both relevant regular programme and AOSCF activities, rather than the present concept of a rather isolated TCB.

45. The new UNDP processes, recent assessments, and other agency experience make it clear that United Nations system agencies cannot be competitive "centres of excellence" in their TC fields unless they bring the entire Organization's expertise to bear on TC matters when needed. A very good example is ILO's productive relationship with the World Bank, as discussed in the new JIU report on co-operation with multilateral financial institutions, which involves that entire organization in co-operative TC work. The Inspector agrees with the Brown report that there is a close interaction between the ICAO regular programme, technical co-operation activities, and the basic objectives of ICAO in global civil aviation, which must be clearly established and defined in an ICAO TC programme strategy.

46. Second, preparation of a TC programme strategy should not be a one-time event, but must be a continuing process to ensure a responsive programme. A 1991 consultants' report on UNDP's senior management structure, requested by the UNDP Governing Council, concentrated on the lack of a commonly shared and accepted vision and strategy in UNDP. It observed that, despite some promising initial steps, this lack of focus led to management and staffing complications. The consultants concluded that UNDP needs an on-going process that is much more programmatic than in the past, and provides a vision and strategy to guide operations, streamline staffing, and enhance performance. This same analysis and need for a much improved process of strategic thinking is also very applicable to ICAO's TC efforts.

47. For all the above reasons, the Inspector believes that a sound programme strategy is essential for a successful and effective future ICAO TC programme. She therefore recommends that ICAO prepare and adopt as an urgent priority a programme strategy statement for its TC programme. This strategy should incorporate:

(a) the relationship of the programme and its objectives to ICAO's overall mission and objectives;

(b) a coherent presentation of ICAO regular programme and TCB elements involved in the programme;

(c) a statement of the overall strategy to be followed, based on programme progress made to date;

(d) a statement of the major programme priorities;

(e) provisions for periodic discussion and updating.
C. Evaluation, review and follow-up

48. The Brown report of May 1990 contained a critical review of ICAO's limited evaluation and review processes for its TC activities:

(a) ICAO had not done much evaluation, had not filled its existing Evaluation Officer post, and had not funded any project evaluations itself in recent years;

(b) ICAO had participated in evaluation of civil aviation projects by UNDP and others, and had summarized them for the Council, but this was not a good substitute for an in-house evaluation unit providing direct quality control and operational feedback on results;

(c) UNDP staff views on ICAO TC projects and their evaluation were often favourable, but contained some firm criticisms as well, particularly with regard to institution-building, incorporation of technological advances, and poor performance of Regional Training Centres;

(d) The Council had not received information on follow-up actions to correct project evaluation problems, nor to allow it to discuss evaluation findings, lessons learned for the programme, and other substantive issues relating to civil aviation's role in economic development;

(e) the vacant Evaluation Officer post should be filled immediately, located in the Office of the Secretary-General to ensure independence, and the officer should be available to present and discuss reports before the Council;

(f) for the same general reasons of economy and efficiency, and to satisfy the concerns of those providing funds, ICAO should act to assure proper staffing and regular review of the TC programme by its Internal Audit unit 41.

49. The Inspector concurs with these findings and recommendations, based on her own updated review of ICAO project evaluation patterns, specific evaluation documents, reports on evaluation missions to the Council, interviews with ICAO, UNDP and others on these matters, and the existing evaluation and internal audit situation. Although ICAO has given further consideration to filling the frozen Evaluation Officer post 42, no action has yet been taken. The Inspector wishes therefore to supplement the above concerns about ICAO's weak evaluation and review processes with two further observations.

50. First, ICAO has fallen far behind the rest of the United Nations system and other smaller specialized agencies in its evaluation work. JIU's first status report on evaluation in the United Nations system in 1977 found that only 2 of 12 agencies had such systems, but by 1985 21 of 24 organizations had some type of evaluation system.

51. JIU also found that these systems were changing from the old emphasis on evaluation of individual TC projects to include thematic evaluations, external evaluations, headquarters evaluations, central evaluation units, built-in evaluation systems, and data banks on "lessons learned." JIU recommended that all organizations take action to firmly integrate evaluation and other review processes into a solid performance information system, as part of a longer-term management development process 43. JIU also encouraged ICAO and other smaller specialized agencies to enhance their modest project evaluation systems and consider extending them to regular programme activities 44.

52. The 1986 JIU review of the ITU TC programme noted that ITU had very diffuse responsibilities and procedures for evaluation, programme design, training, and substantive reporting, and an emphasis on
inputs and procedural efficiency. JIU recommended that, although resources were tight, ITU appoint a
full-time evaluation officer to implement and oversee a monitoring, evaluation and reporting system as
required by UNDP’s revised evaluation processes, and to provide a clear-cut focal point for TC quality
control, performance evaluation and reporting. ITU did appoint an evaluation officer, and has
subsequently progressed to the point where its new TC services brochure emphasizes not only high
standards in ITU programme results through evaluation, but offers to help other telecommunications
organizations that want to establish evaluation units, methodology and procedures.

53. The Secretary-General of IMO also requested JIU’s advice on setting up a built-in self-evaluation
system. The resulting 1987 JIU note reviewed the design, monitoring, and evaluation basics of such a
system. It analyzed the application of the system not only to IMO TC operations and administrative and
common services, but also to the work and servicing of inter-governmental bodies. JIU suggested, and
IMO largely accepted, a gradual introduction of this system in IMO, with a central evaluation unit in the
Office of the Secretary-General to implement and oversee the system. JIU cited the evaluation process
as a management tool to enhance the reputation of IMO as an active, problem-solving body concerned
with steadily and systematically improving the quality of its work.

54. A second important point to be made about evaluation systems is that UNDP expects enhanced
evaluation activity, and improved accountability and programme quality, from its executing agencies. A
1987 UNDP analysis, for instance, concluded that major changes in TC require major changes in
evaluation. Evaluation had first concentrated on mobilizing inputs - especially experts - for projects. Then
the focus shifted to results, and how to apply them to new projects. But now the urgency of TC needs
means that a new, much more dynamic evaluation process is needed, which will contribute "actively and
immediately" to improve TC management and effectiveness.

55. In recent years the UNDP Governing Council has firmly stressed the need for improved project and
programme quality, and the accountability of executing agencies for their performance. During 1991,
the Governing Council re-emphasized the need to evaluate the effectiveness and impact of UNDP
assistance, ensure feedback of lessons learned into current operations, and improve monitoring and
evaluation in (and of) the new support cost successor arrangements. In addition, UNDP’s own
evaluation work will now concentrate much more on programme analysis, assessment of overall
organizational effectiveness, and improvement in the follow-up and use of evaluation findings.

56. The Inspector concludes that ICAO can no longer leave its Evaluation Officer post vacant if it is to
have a strong future TC programme. Although funds are very tight, a vacancy in this particular post is
not only false economy but self-defeating. A functioning evaluation system shows that an organization
is committed to cost-effective, results-oriented management. It stimulates better programme
performance, and helps attract additional funds to continue and expand operations. Without at least one
evaluation officer as a full-time focal point for such actions, however, ICAO cannot have a credible TC
programme in the 1990s.

57. Three other observations underlie this basic conclusion. The existing ICAO description of Evaluation
Officer responsibilities - essentially to "manage" project evaluations - must be broadened, to support
a dynamic individual who stimulates, performs, and oversees actions to attain stronger performance
throughout the TC programme, as already found in the evaluation work of ITU, IMO and other agencies.
Because ICAO TC must incorporate contributions from both the regular programme and the TCB, ICAO
should also consider extending evaluation coverage across the entire organization. And since internal
auditors play an increasingly important role in improving organizational efficiency and cost-effectiveness,
the Internal Audit Office should also regularly review TC operations as part of its work programme.
58. The Inspector therefore recommends that ICAO fill at least its existing Evaluation Officer post, to provide systematic monitoring, evaluation, analysis, reporting, and follow-up on results, patterns, problems, and issues in its TC programme. The Evaluation Officer should report directly to the Secretary-General. Evaluation should also be considered for application to other parts of the organization, and the Internal Audit Office should include regular review of TC activities in its work.

D. Programme guidance and leadership

59. The final report of the Nordic UN Project in 1991 was quite critical of the inability of many present United Nations system governing bodies to provide the "executive governance" that complex and dynamic operational programmes require. It urged the establishment of smaller bodies, meeting more frequently to critically review and guide these programmes on a continuous basis and improve their impact. \(^{53}\)

60. The 1991 Danish study acknowledged that it is difficult for multilateral agencies to concentrate on their areas of comparative advantage, a decision-making process which must contend with many vested interests and legitimate concerns, both within the agencies and among their member states. Nevertheless, it too proposed steps to encourage agencies to concentrate and focus their operational programmes to best use their resources and comparative advantages. \(^{54}\)

61. ICAO oversight of its TC operations was insufficient during the 1980s, as shown by the unchecked growth of the annual deficits in the TCB. Establishment of the Ad Hoc Working Group of the Whole on Technical Co-operation in 1989 began to change this situation, and the establishment of a Technical Co-operation Committee in 1991 is a very important step to provide much more information to the Council on TC matters. The positive potential of the new Committee is increased by the fact that its members are essentially already "on site" in Montreal, and that its composition is to be kept small at 13-15 members. \(^{55}\)

62. The Inspector believes, as the new JIU report on co-operation with multilateral financial institutions concludes, that the key focal point for stronger TC performance in ICAO must be its Technical Co-operation Committee. It is there that senior management proposals, strategies, and performance assessments come before contracting State representatives for their deliberations, review, and policy guidance. Critical scrutiny and action by senior managers and governing bodies is essential to provide:

(a) the leadership, policy guidance and firm support needed to ensure sustained organizational improvement;

(b) the programme planning and strategic thinking required to provide well-targeted services which meet rapidly changing development circumstances, emerging trends, and changing clientele needs;

(c) the encouragement, recognition, and support needed to stimulate creativity and new approaches throughout the organization;

(d) solid monitoring, evaluation and follow-up processes to ensure efficient and effective programmes; and

(e) assurance to all contracting States of the organization that they are getting the highest-quality, most efficient technical co-operation services that the organization can possibly provide.
63. As this list indicates, Technical Co-operation Committee deliberations should provide leadership, innovation, and follow-through at the programme and policy levels, not "micro-management" of day-to-day operational and administrative details. The above-mentioned JIU report gave examples of recent initiatives in this area in other organizations. A 1987 UNCTAD review of its TC activities and financing might be of particular interest to ICAO, since it explored in a quite coherent and concise fashion how to exploit UNCTAD's "comparative advantage", reverse a funding decline, better relate TC work to regular programme analytical and negotiating functions, and build closer operational contact with UNDP and other agencies. Other examples cited in the JIU report, in addition to a summary of UNDP's major recent reviews, are a review of goals, operations and management systems by independent consultants for the Food and Agriculture Organization (FAO); a review of external relations activities and priorities in UNICEF; and an overall management review to begin a long-term, ongoing reform process in United Nations Industrial Development Organization (UNIDO) 56.

64. In addition to considering actions to foster a competitive posture in section A. of this Chapter, and the above reviews recently made by other agencies, the Inspector commends to ICAO the other recommendation of the new JIU report on co-operation with multilateral financial institutions. The new Technical Co-operation Committee of ICAO might wish to sustain a strong future programme by including as many as possible of the following topics in its periodic deliberations, concentrating on results achieved, lessons learned, changing circumstances, emerging trends, and proposals for future strategies and initiatives for technical co-operation in civil aviation:

(a) significant co-operative actions, programmes, or funding or liaison arrangements with multilateral financial or other development institutions;

(b) organizational reviews to consider operational improvements such as new efficiency measures, streamlined support services, or special task force structures;

(c) significantly improved or new developmental strategies, services, or programmes underway;

(d) new techniques or technologies being successfully applied to enhance development;

(e) possibilities for better employing the advocacy, normative, standard-setting, advisory, analytical and/or research roles of the organization to strengthen its technical co-operation activities, with support from other parts of the organization;

(f) most difficult but perhaps most important of all, tightening the focus of the overall programme by identifying and further developing successful services and activities (i.e. what ICAO "does best"), while also eliminating those that are obsolete, irrelevant or unsuccessful.
III. OPERATIONAL AND ORGANIZATIONAL ISSUES

A. Organizational Strategy

65. One of the results of the lack of overall strategic considerations by ICAO, has been that no comprehensive analysis of external factors and their implications has been performed, with a view to ensuring that the appropriate organization is performing the required functions in the appropriate manner and corresponding to the real situation by taking into account changes in the environment in which it is operating. There has been little formal or documented strategic thinking, with little awareness of the trends and changing circumstances of civil aviation and technical co-operation 57.

66. The evidence suggests that while ICAO has had a very good technical response to the changing circumstances in terms of up-to-date knowledge of the technology and training methods in civil aviation, it has not been responsive enough in terms of changing funding circumstances and changing modalities of technical co-operation.

67. The question is why there has been little appropriate strategic thinking. It has to do with the fairly successful ICAO technical co-operation programme in the past, when the circumstances were different. This meant a strong focus on operational aspects with little need for setting aside capacity for overall planning and strategic thinking. The use of the project approach, which with its more defined and concrete nature were the order of the day, combined with the relatively high availability of funding, meant little time or need for strategic analysis 58.

68. Because of this lack of built-up strategic capacity, the trends or reasons for the changing circumstances and their consequences were not accurately foreseen. As circumstances changed, funding became more difficult to obtain, the programme became smaller, the capacity of TCB was reduced and it was no longer considered affordable, taking a short-term view, to devote resources for detailed strategic thinking. As the programme was reduced even further, this approach was even further emphasised and a vicious circle was created.

69. The lack of strategic thinking has had some severe consequences for the operation of technical co-operation in ICAO. The organization has lacked organizational aims and direction to the extent that operational and organizational initiatives have been taking place without a coherent plan. In addition, certain aspects in terms of where the organization is heading, have been ignored or not adequately considered.

B. Integration between Regular Programme and Technical Co-operation Programme

70. One of the main aspects not considered adequately, is the integration of TC activities in ICAO and more specifically, the integration of TCB in the Regular Programme (RP).

71. It is a fact that TCB and the RP of ICAO are perceived to be two totally separate entities or organizations, although in legislative terms and in legal terms, TCB is an integral part of ICAO as is, for instance, the Air Navigation Bureau. All officials of ICAO consulted for this study - both RP and TCB - had that opinion 59. The claim was that both in attitude and in actual operations, the operations were so different that it would be difficult in general to combine the two.

72. A very strong indication of the existence of this attitude, is the lack of commonly agreed upon data for the cost-sharing of certain resources through the funding of various posts in the RP by the TCB
through the AOSCIF (see paragraphs 105-106 for more on this) 60. Further indication of this is the very small degree to which RP staff at Headquarters (HQ) is used for TC missions. Accurate figures were not available, but all estimates given by both RP and TCB staff, indicated that at maximum 15 percent of team members on TC missions were RP staff 61. At the Regional Office (RO) level the percentages were slightly higher and varied considerably depending on the specifics of the region and the culture of the regional office.

73. One problem with the lack of integration at the conceptual level - but with strong operational and functional consequences - is that the inherent benefit and symbiotic relationship of integration through sharing of field experience is not achieved. Technical co-operation in civil aviation is basically a question of creating the capacity for meeting the required standards. These standards should to a large extent be based on what is feasible in the real world, which require extensive and detailed field input as to what works and what does not work, while at the same time setting levels of standards to aim for.

74. The basis of the work of ICAO is the conventions setting up standards. Regional Air Navigation plans are then prepared outlining the specifics of the standards in the region and what standards need to be met. These plans are detailed in terms of the status of the standards in the region but do not seem to include the next logical step, namely a precise and detailed identification of the TC structure or initiatives (programme !) actually required to reach the standards 62.

75. Another conceptual problem with the lack of integration is that operational aspects of TCB - i.e. actually implementing the projects - become the main focus of the TC programme in ICAO to the detriment of overall strategy and policy aspects. It is clear that there is a need for much more TC involvement or input into the planning and strategic thinking and capacity of both the overall planning of ICAO and of individual countries in terms of a programme approach 63.

76. There are some direct operational and functional consequences of the lack of integration between TCB and RP and apparently sound reasons for why integration in certain common functional areas - such as recruitment and personnel administration - is not feasible. Many of these have been documented in detail in various working papers and in the consultations with both RP and TCB officials as part of these studies, and have dealt with the differences in the work process of the TCB and RP 64.

77. Ideally, these consequences should be analyzed one by one. But to do so would require that detailed data and information on the work processes in terms of capacity, cost and nature be available. As this is not the case, it is not possible to deal with each of these consequences and reasons - and the scope of this report is not anyway appropriate for this type of detailed analysis - although it is clear that such a detailed analysis would go a long way towards establishing a common basis for discussion of the feasibility of operational and functional integration between TCB and the RP 65.

78. It is also not necessary for the purpose of this report, to deal with each of the issues separately as it is apparent that it is merely a question of attitude rather than actual differences. At present it can be argued that duplication of certain activities and functions which are not that distinctly different does take place because of what is described as "the more action-oriented" or business approach of TCB 66.

79. When ICAO officials were questioned about the real fundamental difference between the TCB and the RP in these functional areas, it was stated that the difference was really not that significant 67 except that the nature of the work of TCB made it necessary to be more responsive and to act more quickly, while the RP because of its legislative nature was more cautious and less responsive or understanding of the nature of TCB work 68. It has therefore, according to this view, been very difficult to share functions between TCB and RP.
80. This suggests that the apparent lack of understanding between what is required for TCB and what is required for RP occurs exactly because they are kept separate in conceptual and organizational terms. Greater integration and regular contact combined with a shared vision of the inter-dependence of the TC and RP activities is likely to lead to a greater understanding of why shared functions sometimes have to be more responsive or why higher priority has to be given to one of the programmes under certain circumstances.

81. The rationale for integration between RP and TC aspects is supported by empirical evidence in terms of the way other United Nations agencies have organized their TC operations. At one level, the conceptual integration can be seen from the fact that all United Nations agencies - except ICAO - will make RP funds through the regular budget available for TC activities, either directly for specific TC field projects or programmes or by having RP deal with some of the TC support elements. Indeed, in some organizations such as World Health Organization (WHO) and United Nations Educational, Scientific and Cultural Organization (UNESCO), TC does not exist as an organizational unit, but is part of the relevant organization-wide programmes and field activities.

82. In ITU, which is an organization comparable with ICAO in terms of size and nature of the TC sector, the RP contribution consist of both RP funding directly for various TC aspects - e.g. fellowships, evaluation missions and special programmes for the least developed countries - and funding of relevant TC staff and expenses. In organisational terms, the Telecommunication Development Bureau is responsible for the global development of technical co-operation, including the support of technical co-operation activities. The Telecommunication Development Bureau is conceptually - and to some extent organisationally - divided into two areas; one supporting external funded projects (as the executing agency) funded by support cost arrangements, and one area dealing with overall development issues and other TC aspects such as policies, strategies and programming, funded by the RP. This indicates that ITU has both conceptually and functionally integrated TC in the RP, suggesting that ICAO might consider looking further into the ITU approach.

83. Since RP and TC are conceptually linked to the point where making a distinction between the two is a hindrance rather than a benefit, a common planning or strategic approach of the programme (type) with close coordination and consideration of all aspects is necessary. Any perceived conceptual distinction needs to be removed or reduced and one of the most powerful ways to do this in the context of ICAO is to promote the idea of a single budget.

1. Single Budget

84. Much of the discussion concerning the present situation of TCB - and the resulting animosities between the various parts of ICAO - has centred around the issue of TC funding being considered totally separate, i.e., being fully self-financing. The whole discussion has focused on cost-cutting elements, on what posts could be eliminated, on what posts should be funded by AOSCF and on what posts should be funded by RP - all illustrating that the issue of funding is so fundamental as to create differences and ritual distinctions that are not useful and even detrimental to the implementation of the relevant TC approach required in the circumstances of the present.

85. It is therefore necessary to set-up a system whereby the issue of funding does not lead to these "artificial" barriers and lack of common mission but at the same time allows for the appropriate financial accountability in terms of funding sources. The Inspector believes that a single budget with a comprehensive costing or cost-measurement system in place will be able to combine these two elements to the satisfaction and requirements of each.
86. The direct implication of the single budget approach for TC would be the abolishment of AOSCF as a separate funding entity, where both the income (funding) and expenditure - at least in principle - should balance, isolated from the rest of ICAO. Any external TC funding - UNDP and otherwise - will be treated as any other income of ICAO (e.g. miscellaneous income) but properly marked in formal accounting terms so all requirements for donor accountability can be maintained. The AOSCF would exist as a theoretical concept used for purposes of accountability and analysis and not as, as is the case now, an organizational divider with inappropriate consequences in the perception and attitude of "them and us".

87. The main consequence of the single budget would be the acceptance of the principle of integration between RP and TCB. In organizational terms, TCB would no longer be confined to a separate status "outside" ICAO but would be considered as "just another" department in the RP. The whole of ICAO would have a sense of "ownership" or responsibility of technical co-operation and would feel that TC is just as crucial a part of the work of a department in ICAO as regulatory work. They are complementary and one could not exist without the other.

88. In planning and programming terms this would imply that the formulation of a programme in a particular area would use a holistic approach, and that the RP department or function would have the responsibility not only for the planning and programming of regulatory aspects, but also, in cooperation with the relevant part of TCB, for the overall programming of TC activities in that particular area.

89. Such integration is possible because many of the so-called "up-stream" functions in technical co-operation - e.g. policy formulation, sectoral analysis are often inherently part of, or related to, the type of functions and activities that take place in the regular programme 72. These functions are not easily attributable to specific projects, which tend to be the conventional entity for securing funding, and are therefore considered support cost elements to be financed by the regular programme as suggested on several occasions by both JIU in its discussion of the sharing of support cost between RP and the TC programme (illustrated in Annex I), and by UNDP in the new agency support cost regime (illustrated and combined with the JIU framework in Annex 2). It is therefore feasible to identify those as being part of the planning and analysis for a concerted, comprehensive programme effort in a particular area 73.

90. In addition, it is obvious that if ICAO is to get access to future funding from UNDP in the categories of Technical Support Services (TSS) at the programme level, its capacity in the functions covered by the programme level category of support costs, has to be strengthened.

2. **Cost-Measurement System**

91. The requirements of transparency of cost to identify the total cost of specific programmes and projects will be accomplished by the introduction of a continuous costing or cost-measurement system. This will, as part of a planning framework, identify as appropriate individual functions and operations and the cost and proportion of each of these functions that make up a particular funding entity such as a project 74.

92. For example, a specific TC project (which obviously has been identified in a general way as a component in the overall programme for that area and that country!) will be designed and planned as consisting of a certain number of functions and operations as appropriate. An identifier is assigned to each which will be used all the way through the system to record and determine the cost of each of those functions. These functions can be performed as a traditional RP function or as a conventional TCB function. At any given time the current total cost of each project can be determined, reviewed and managed as appropriate 75.
93. This is general to project management and already takes place for projects in the field through the project budget and allocation system operated by Programme Budget Office (PBO). The various functions in the field are costed in detail and are managed along these lines. What is not included - except as general, fairly vague cost estimates - are the support cost elements at regional offices and at HQ. The cost-measurement system would be especially designed to cover the functions and operations performed there as part of both the administrative/operational support and the technical backstopping.

94. A basic principle of the operation of a cost-measurement system is that no additional cost (or at least no significant additional cost) is encountered in the operation of the system. If the distribution keys are appropriately designed - and revised - and it is transaction based with automatic recording of transactions, then the additional cost should be minimal 76.

95. The cost-measurement system would be a crucial planning and management tool providing the data necessary for identifying the "true" cost of various functions and operations 77. This should facilitate more accurate capacity and workload planning to achieve a high degree of flexibility and anticipation of changes in the resource requirements. Such a system would make it possible to provide accurate estimates of the actual elements of support costs making it more transparent what the funds are used for and whether the funding system in operation is appropriate 78.

96. A very important implication - especially in view of the dispute over which posts are to be funded by different funding sources - is that the costing basis is no longer on a post by post basis, but rather on an extended transactions and task basis. In the past and presently, the support-cost sharing arrangements between RP and TCB are based on estimates of whether a post would exist in the RP determined by whether the work load carried out for TCB by the particular post is 30 percent or more 79. This can be a very arbitrary method and the use of this measure is probably one of the underlying reasons for the lack of agreement on which posts should or should not be funded by AOSCF.

97. By using the cost-measurement system with costs given by functions at more detailed levels rather than at individual post levels, not only are more accurate estimates provided, but it also avoids individual posts being classified as TC posts or RP posts which often creates a feeling of them and us, or a "state-within-a-state" and other unnecessary distinctions in a somewhat mundane, but nonetheless important aspect of organizational life. It would also address a more fundamental management and organizational principle of accountability and supervision, namely the existence of parallel reporting lines, one set for functional aspects (i.e. for the actual functions, one reports to one unit) and one set for supervisory aspects (i.e. for work planning, personnel matters, promotions, etc., one reports to a different unit). This situation is very difficult to handle by both employee and employer and should in general be avoided unless very strong reasons suggest otherwise.

98. The funding and income aspects of the organization should as such be external to the organizational and functional aspects so as not to create artificial barriers or distinctions that are not functionally appropriate. For instance, UNDP funds, which traditionally have gone into the AOSCF funds, could easily be allocated to miscellaneous income as long as they were identifiable in the costing system according to auditing principles and therefore could be traced at any time and at any point in the process.

99. The essential point is that ICAO can be financially and organizationally accountable to the funding sources to demonstrate appropriate use of the funds to achieve the desired objectives. This does not necessarily mean that because funding is separate, then functions and operations need to be distinctly separate 80.
100. It is therefore very clear that organizational and direct functional areas - personnel administration, finance, office automation - can be combined even further between RP and TCB in single budget organizations, especially if the measures for dealing with the basic difference in attitude caused by lack of awareness, integration and common mission are taken. Many initiatives and suggestions have been put forward both by internal and external experts, consultants and observers. It would be essential to look at these proposals in detail within the above framework, especially to analyze the impact of those initiatives already taken.

3. Technical Co-operation Task Forces

101. A significant, practical approach to ensure integration is the creation of internal task-forces or working groups for technical co-operation. It is very encouraging that a Technical Co-operation Committee has been formed by the Council in similar fashion to the other committees covering the important aspects of ICAO such as the Air Navigation Commission. It would be very appropriate if an internal task-force of ICAO staff members from both RP and TCB was formed to act as a forum for discussion and input to the strategic thinking on TC elements in ICAO. Obviously such a committee would be informal in nature with no decision making elements as such, but it would serve as a major vehicle for bringing RP and TCB together to discuss obvious common issues on an informal level and to obtain the level of understanding required to form a common mission or purpose.

102. This general task force would be a permanent forum for discussion of more general TC elements and issues as part of the planning and programming aspects and consisting of representatives from all major programmes of ICAO. Some other United Nations organizations have general task-forces or interdepartmental committees, such as the interdepartmental committee on TC practices and procedures of the ILO.

103. On a more specific level, ad hoc task forces could be formed to coordinate and discuss individual programmes with TC aspects. These ad hoc task forces would consist of technical representatives from all relevant departments from both the RP and TCB. As part of this system, each TCB project or initiative would have to be "adopted" by a major programme or department in RP, which would at minimum assume the principal conceptual responsibility for the project or initiative and maybe, if appropriate, assume the full technical responsibility. Such a system of "adoption" would greatly facilitate the understanding of inherent integration and complementarity between RP activities and TCB activities. Other United Nations organizations operate with this concept, such as FAO with the concept of a designated lead technical division for all TC programmes, projects and activities, and UNESCO which attaches all TC projects to a specific RP heading in the Work Programme.

104. In some aspects, this kind of integration is already evident in some of the regional offices of ICAO, where de-facto integration or "adoption" of particular TC projects within the respective fields of the Technical Officers (TOs) in the RO is already taking place and where the Technical Co-operation Officer (TCO) is acting more in a "coordinating" role, handling mainly, direct TC activities while the TO is carrying out the review and "monitoring" of at least the technical elements of TC projects.

C. Proposals for Restructuring

105. The design of a new strategy for TC in ICAO based on the issues outlined in chapters I and II and the consideration of the integration of RP and TCB will have organizational and operational consequences. A re-consideration of the organizational structure is therefore required. It will have to be done within an organizational plan formulated on the basis of the new strategy. It will have to be suitable
for use as a basis for discussion of the possible alternatives for restructuring and should include principles and guidelines for the "mission" or purpose of the new strategy to clearly communicate the purpose, views and policies.

106. In the past, many initiatives for restructuring have been put forward and it was originally the intention - as suggested in the first JIU report dealing with the AOSCF deficit - that this report would deal with initiatives put forward for re-structuring of TCB and suggest which ones were most appropriate. However, it has become clear as more detailed analysis has taken place, that to do so would require a common basis of data in terms of workload, resource requirements etc. which is not available in any form and especially is not available in a form which both TCB and RP can agree on.

107. To measure the impact of such initiatives would require that each initiative was part of a more comprehensive strategic plan and secondly require a baseline of data for comparative purposes \(^{82}\). None of these elements are present. It is therefore evident that one of the first initiatives in the process of determining the areas in which further functional and operational integration can take place to eliminate duplication of effort, is to initiate a comprehensive initial cost-measurement study of the whole organization, both RP and TCB. Some of this might already have been done in some areas of the RP, but it is important to combine this in a comprehensive methodology which can be a commonly agreed upon baseline of data for any future discussion and planning of functional and operational integration. Without such a common basis, any discussion is going to be too un-focused to be of much practical value \(^{83}\).

108. For the purpose of this report it is therefore more useful to outline some of the principles behind the specific restructuring. One of those basic principles that has already been mentioned (paragraph 71), is that TCB becomes in the actual sense what it is in the ritual sense. In the ICAO organogram, TCB is listed as merely another bureau or functional entity in ICAO. But in the past and at present, it is considered in actual terms as having more of a separate identity. However, it should "just" be another bureau in ICAO responsible for that the particular area or functions directly related to technical co-operation. It should cooperate to the same extent with other bureaux as the bureaux within the conventional RP cooperate with each other. TC aspects are part of the work of the other technical bureau just as in many cases Air Transport aspects, for instance, are an integral part of certain activities in the Air Navigation Bureau.

109. The TCB should as any other technical bureau in ICAO only be responsible for its "technical" area, namely specific TC aspects requiring technical skills in the area of technical co-operation. This means that while all conceptual TC knowledge and responsibility should lie with the TC bureau, only operational aspects requiring very specific TC knowledge should be the responsibility of TCB. It is the application of the comparative advantage principle not only to TC in ICAO in relation to the external environment - UNDP funding, changing requirements by government, changes in civil aviation etc. - but also to TCB in relation to the rest of ICAO. TCB's comparative advantage should lie in conceptual and, to some extent, operational application of the technical knowledge in the setting of development and technical co-operation rather than in the detailed technical knowledge of civil aviation in general \(^{84}\) or in administrative and operational tasks not requiring TC knowledge and expertise.

1. **Planning, Programming and Analysis Capacity**

110. This is especially important in the strategic thinking process and in the move towards more focus on planning and policy support with formulation of programmes and performing sectoral analyses. In external terms, this trend suggests that ICAO has to be able to demonstrate to funding sources - both UNDP and others - that it has the capacity to do highly qualified sectoral analysis and planning,
combining both specific technical knowledge of civil aviation with knowledge and capacity for civil aviation planning in the conditions of development.

111. But equally important, and internally to ICAO, the TCB has to be more responsible for the coordination of ICAO initiatives in TC within the conceptual integration. This means actively coordinating the TC aspects of the programming and planning of TC elements in other bureaus or major programmes. TCB should have the capacity and knowledge of the TC field in general and in civil aviation in particular to provide input and comments to any initiative within ICAO dealing with TC. In very practical terms, it means a formal and structural way of continuously assessing the situation, providing detailed input to planning and of alerting other technical departments of changes in the TC environment, in funding arrangements etc that could have an impact on the work of these departments.

112. It is therefore imperative that the necessary framework and capacity for structured strategic analysis and planning is provided for in any restructuring of the TC programme.

113. In conceptual terms it might be appropriate to introduce the concept of a Technical co-operation Planning Equation for forecasting. One of the major benefits of a strategic analysis is that it provides a basis for identifying what is needed (what does the "market" demand?), what is to be done (what "product" will meet the demand of the "market"?) and what means are required to supply this "product" (are the resources available and can the organization make the full use of these resources?).

114. In TC terms, it means identifying one side of the equation which is the TC initiatives needed - given the TC environment and the requirements and priorities of the governments - and the cost of implementing those initiatives against the other side of the equation which is the funds that can realistically be expected to be made available through various sources.

115. The first side of the equation is given by the nature of civil aviation with standards and criteria to be met. Regional Air Navigation plans specify the standards yet to be fulfilled and the extension in TC terms is to make an assessment of the initiatives required to meet these standards. This is a particular version of the NatCap principle of UNDP and on this basis, programmes can be developed with a list of potential projects similar to the pipeline projects, but not fully developed or planned to the same extent. A more realistic approach has to be applied in terms of determining what is actually feasible, given the level of funding and the minimum required in any given period to meet the minimum standards in the Regional Air Navigation plans. The regional offices will have to play a major role in this as it will require more extensive and detailed knowledge of the status of individual regions and countries. This is similar to "market research", where ICAO has the advantage of a limited, well-defined "market" in TC terms with a "sales force" in the form of the officers of the ROs, already (at least nominally) in place.

116. The other side of the equation is to estimate the availability of funds. This is very difficult and has in the past made forecasting of programme size somewhat difficult to the point of being totally rejected. However, it is not technically or conceptually impossible. Many organizations, especially commercial organizations, are faced with the same uncertainty of funding due to the cyclical nature of their business. It will be different factors causing the uncertainty, but the principle is the same.

117. One approach to deal with this uncertainty is the principle of a "client/sales" inventory in which various levels of "sales contacts" - for ICAO, read government decision to use Indicative Planning Figures (IPF) or other funds - are assessed or ranked according to likelihood of materialising. Worst case or best case scenarios can then be established and an estimate made of the required resource level and work capacity required.
118. The need for a framework for this Technical Co-operation Planning Equation and the greater emphasis in general on strategic and sectoral policy formulation, planning and programming, suggest that an organizational function responsible for planning and analysis specifically on TC in civil aviation has to be established. This Planning and Programming Section (PPS) will be responsible for providing the TC planning and programming support for the whole of ICAO - both the technical bureaux in RP and for other parts of TCB. It will be staffed with TC planning experts, ideally with civil aviation experience, although in principle this can be acquired from other parts of TCB.

119. The PPS should be responsible for the strategic analysis required to ensure that ICAO always provides the most effective, efficient and appropriate TC support. This involves evaluation aspects, collective memory structuring and dissemination of information, knowledge and experience. It will advise the Director of TCB on the steps to be taken in strategic terms to ensure a proper role for TC in ICAO.

120. There will be a large applied and operational element to the PPS. Not only will it advise specifically on planning aspects of individual projects and initiatives, but it will also be responsible for providing the basis for the planning and analytical capacity required to "compete" for the contracts for technical support services at the programme level (TSS-1) that the new support cost regime of UNDP is proposing. It will have to be of such a strength that it can document to governments, donors and other parties in the TC environment that ICAO has the TC planning skills needed to use its comparative advantage.

121. Many of the functions which presently are nominally part of the Project Development Section (PDS) - project development, acquisitions, evaluation, etc - will be part of the PPS. But in contrast to PDS, which was severely hampered by the lack of resources and by the lack of a clearly defined role, it would by definition have the resources and capacity to deal effectively with these functions. If it is not given those resources, then ICAO has not realised the situation and is not prepared to exist in TC terms in the changing environment of TC.

122. It is especially important that the PPS is given enough resources to activate a proper schedule of acquisition through a resource mobilisation function, e.g. the Resource Mobilization Officer proposed in paragraph 29. The TC programme of ICAO has to look for new funding opportunities and for new modalities of TC. Investment has to be made in "marketing" if the vicious circle of "small programme, no project development, even smaller programme" has to be broken. If a new TC approach with more focus on sectoral analysis and policy planning is adopted, a campaign of promotion has to be designed and implemented to ensure that the rest of the world knows about the change in approach. The views of ICAO on aspects of TC relevant to ICAO have to be communicated timely, clearly and forcefully to ROs, to RP and to the various participants in civil aviation, who should all be known to ICAO.

2. Operational Flexibility

123. In the previous section, an approach placing more conceptual planning and programming focus on TC activities was suggested. The full application of this approach would imply a shift in concentration away from directly operational projects - and the associated non-TC administrative and operational requirements of personnel administration, accounting and other day-to-day management aspects - towards more planning and sectoral analysis activities. Many projects will turn into long-term associations and assistance programmes where ICAO works closely with the relevant civil aviation body
in an advisory capacity and for a long period advising the government on individual projects, initiatives and programmes rather than being responsible for the direct execution of individual initiatives.

124. It should not mean a total discarding of all direct operational project based initiatives - they are still justified in many circumstances - and they provide a basis for field experience. However, it is clear that the lesser concentration on conventionally-based activities means a need for a smaller and more flexible operational arm. In short, the necessary ability to response to changing circumstances should be present in the organization. This means considering the establishment levels in relation to the programme level in the form of the marginal operational level at which an additional workload would justify an addition to the establishment.

125. The size of the TC programme and the fact that it can vary considerably between years suggest the strong need for flexibility in the field operations branch. The decrease in the programme size with the accompanying reduction in staff means that in two sections the manning level is two professionals, of which one is the chief. The low manning levels of these regional sections mean that in holiday periods and in case of sickness, the manning level is down to one or even zero professional staff, severely hampering their performance. All officials interviewed from these sections mentioned this as a major problem and also suggested that professionals from other sections were not sufficiently briefed on their projects to provide satisfactory cover except in extreme urgencies.

126. It is therefore necessary that any restructuring of the TC programme of ICAO has as a basic principle that more flexibility is introduced. One way to achieve this is to organise the direct operational functions of TCB - i.e. the current field operations branch - along functional lines rather than regional lines.

127. The principle behind this is the level at which coordination has to take place. In many types of organizations, but especially in TC organizations, coordination has to take place of functions or operational elements (e.g. procurement, personnel etc.), sectoral elements (e.g. education, health etc) and regions (Asia, Africa etc).

128. The level at which the respective coordination takes place, depends on the level of detail and importance of coordination required of each element as determined by the specific circumstances of the field in which the organization operates, the nature of the work of the organization and the size of the organization as it relates to management control purposes.

129. For instance, in many big, multi-sectoral organizations, functional coordination is so important because of size, that it has to take place within each sector before sectoral, regional and overall coordination takes place. In smaller, single-sector organizations such as ICAO, the size makes it more feasible - from a management perspective - to have functional and regional coordination at the same level.

130. For ICAO, the need for sectoral coordination is non-existent and the question of regional coordination depends on the degree to which the work or approach within each region is so different in the fundamental approach that it warrants separate regional management structures at headquarters.

131. It is difficult to oppose the fact that socio-economic circumstances are different and unique in each country and region, which can mean different approaches in the specifics. But in terms of support of TC civil aviation operations it is questionable whether such differences exist. Every official in the ICAO with regional responsibilities, questioned on this issue, answered that fundamentally the support functions carried out at headquarters in the regional sections are identical and that it would be possible
to combine them. No official when challenged further on this came up with arguments that suggest that this was not the case. Separate research by the JIU of independent sources also did not suggest any fundamental differences that would call for fundamentally different approaches in different regions.

a. Global structure for field operations

132. The conclusion must be that the present situation of decreasing or varying programme level calls for a degree of flexibility that can be achieved by pooling all field operations sections into one single global field operations section consisting of the required number of implementation officers.

133. The implementation officers will have the present responsibilities of the officers in the current regional field operations sections, but will not be confined to projects in particular regions and will take on responsibility as appropriate. Such a division of labour will mean that the specific skills and experiences of individual officers can much more efficiently and effectively be used where it is needed. For instance, some officers will develop specific regional expertise, which mean they will be primarily assigned to projects or initiatives in this region, while other officers might develop specific functional expertise (e.g. training projects) and will therefore primarily resume responsibility for projects using this functional approach no matter which region they are in. This structure will provide a higher degree of flexibility from the perspective of the organization and will give much better opportunities for diversification and variety in the work for individual staff members.

b. Regional co-ordination at regional offices

134. The focus of regional coordination should shift from the more functional coordination in support terms at present carried out at headquarters to a more conceptual and general coordination in the regional offices. Regional coordination is best done where the regional expertise is available and that is in the regional offices. It could even be advisable to transfer some direct reporting, monitoring and accountability responsibilities of the project field staff to the regional offices by placing senior TC implementation officers with management experience in the regional offices.

135. In general, there will be a need for the strengthening of the TC capacity in the regional offices, because - as discussed earlier in this report (paragraphs 22, 23, 33 and 35) - the new role or focus of United Nations agencies in general and ICAO in particular will require a substantial strengthening of the capacity to assist governments in strategic and sectoral analysis and policy formulation. That close contact with the civil aviation bodies is, or should be, in the regional offices.

3. Operational Support Section

136. Depending on the degree of regional de-centralisation, the implementation officers in the field operations section (whether based at HQ or at RO) will be responsible for all phases of the implementation of individual TC projects and initiatives. They will not necessarily perform all functions, but it will be their responsibility to ensure that the required functions - whether performed by themselves or by other parts of ICAO - are performed according to the working plan.

137. To facilitate the degree of quick response required, the implementation officers should perform as many of the functions as feasible in terms of workload, experience and knowledge. The principle is that as many as possible of the operational and administrative support functions retained for ICAO to do, should be delegated to the implementation officers, or the RO as appropriate, through well-defined structures, processes and systems such as automated computer systems.
138. This principle has already been considered in the computerized field recruitment system and in the fellowship-system and a proper application could mean that fewer support sources in areas such as recruitment, personnel and procurement are required. The analysis behind the design of these systems does suggest that it is very possible to apply this principle thoroughly. For instance, for the Field Recruitment Progress Sub-System, a comparison of the listing of the functions performed by the officers in the present Field Operations Branch (FOB) and by the recruitment officers in present Field Recruitment Unit (FRU) shows that only two functions are carried out by FRU and not by FOB. This suggests that the functions considered to require personnel skills rather than general TC operational skills are very few and would - at the present activity level - not require a separate field recruitment unit.

139. The principle of field operations section performing as many TC operational functions as possible is part of the principle discussed earlier; that TCB should only deal with the TC aspects and functions that require specific TC knowledge and which are different from other functions because of the TC aspects. In direct operational terms, it means that functions that naturally belong in RP as part of general operation, administration and service should not be part of TCB even if TCB uses these services extensively. For instance, other bureaux in ICAO do not have their own operational support and administrative functions, and although it can be argued this is because they do not need it, then it is important for the message of TC as a integral part of the whole organization that TCB is not perceived to be unique by having its own separate function of the kind which is normally shared.

140. The extension of the principle is that the only operational support or advisory functions that should be in TCB are the ones related directly to TC and requiring specific TC knowledge. For instance, personnel administration of TC staff - at HQ or in the field - is not specifically TC related and shares more common features with administration of non-TC staff than it does with other TC activities.

a. Advisory and support officers

141. It is therefore suggested that individual advisory functions or support functions are attached to the support section as functional or technical officers to perform specific global duties within their specific technical field - e.g. personnel, fellowship etc. - as well as advising and supporting the implementation officers on specific projects or initiatives. The global duties would be functions such as the maintenance of the recruitment roster (Roster System) and the training centre inventory, but should also include general research, policy and planning support to the planning function within the respective fields and if need be, to RP activities.

b. Procurement and contract management

142. One advisory function of special interest is the procurement function. The concept of Civil Aviation Procurement Services (CAPS) is a very relevant one with great potential for further development if given appropriate encouragement. The proper structure for this encouragement through more publicity and acquisition should therefore be established.

143. A general aspect or natural extension of procurement is contract management. Sub-contracting is one of the popular concepts in the modern, cost-aware TC environment and UNDP is promoting this extensively. For instance, one of the basic reasons for the claim of Office for Project Services (OPS) of UNDP that it can survive on a support cost ratio of less than 10 percent, is that much of the operational support is sub-contracted out and therefore partially can be allocated to direct project costs rather than support cost.
144. However, the main benefit of sub-contracting - in addition to ensuring access to the most relevant and most recent knowledge - is that it adds a high degree of flexibility to a programme. If the TCB could build up the necessary capacity and knowledge to identify, assess and manage relevant sub-contractors, then a small, operational TCB function could manage a TC programme of varying size without encountering major strains on the size of its own operations. This is similar in principle to the core staff concept proposed by many initiatives within ICAO with the major difference that it is not merely a transfer of responsibility for financing posts, but is in the context of a strategic rethinking of the organizational structure.

145. The sub-contracting aspect is something to work on for the future. However, it might be appropriate at this stage to consider creating an advisory function - for instance as part of the procurement function - on sub-contracting, which could perform an analysis of the feasibility of this approach for ICAO and which could advise the implementation officers on these aspects. This contract-officer could be the beginning of a contract function which would eventually become a separate unit in the operations support section and which would comprise procurement.

c. Programme budget office and financial functions

146. The present Programme Budget Office (PBO) is a support function to the TCB. Its main, clearly defined responsibility of project budget control is a major support function to the present field operations branch, while its other functions of general budget and financial support to the TCB are of a minor role in operational terms.

147. This suggests that the PBO is very much an operational support function for field operations rather than a general finance support function for the whole of TCB. Conceptually - and operationally - it belongs with the other support and advisory functions such as procurement, personnel and fellowship, although for managerial and financial control purposes it might have to be separated from other functions.

148. It raises the questions of whether all general accounting and financial management aspects not related directly to the budget control and management of TC projects and operational field aspects could not be handled by the finance section of the RP. Again, the premise is that these functions have more in common with these functions for other bureaux than with TC support functions. With a proper cost-measurement system in place, the management and costing of the extra-budgetary funds at present allocated to AOSCF, will also require less resources of this kind and would not necessarily have to be handled by a TC financial function.

d. Office automation services

149. The Office Automation Unit (OAU) of TCB is an even more clear case of support services where the specifics of operating TC initiatives have very little impact on how office automation should be organised and structured. The specifics of TC will only affect office automation in the design and contents of the computerized systems implemented. To design and operate a computer system dealing with TC aspects will not as such require a different organizational framework than designing and operating a computer system in RP.

150. It is true that in the actual "business" analysis and system analysis phases, knowledge of TC matters is needed, but this kind of detailed knowledge is obtained from the users in the TC environment and does not dictate that the OAU function should be located in the TC in order to gain this knowledge.
Other bureaux in ICAO do not have a separate OAS function, but rely on the central function. And even though TCB at present has a much greater need for computerization, the basic principle still holds.

151. In the past, much effort - and many resources - has been spent on the office automation elements of ICAO. At present, two almost totally separate general systems or software platforms exist (although recently several initiatives have suggested more close cooperation) and there are, without doubt, areas in which further cooperation would be very beneficial. A single OAS function for all of ICAO would make it easier to identify those areas and to implement a common information technology strategy. TCB is arguably more advanced in some areas in the use of IT and would therefore to some extent be guaranteed to have its need considered very strongly in a common strategy.

152. One definite reason for a single information technology function is the implementation of the cost-measurement system. For such a system to be technically and financially possible, it will have to be computerized. It would have to be fully integrated into all existing systems as appropriate and would require such cooperation that separate, independent information technology units - no matter what degree of formal coordination - would severely hamper the implementation and usefulness of such a system. And this ICAO could ill afford at this stage.

e. Telecommunication and Registry Unit

153. One final specific function in the TCB is the Telecommunication and Registry Unit. The work of this unit can be separated into a support function serving both TCB and RP (telecommunication) and a function serving only TCB, namely the Registry function. The latter function is clearly a TC related only administrative support function and should therefore remain within TC as part of the support section.

154. The function of Telecommunication has been assigned organizationally to TCB, because over 90 percent of the work in terms of telecommunication is concerned with TC. However, this function falls under the principle that it is not as such a specific TC related function - it does not require specific TC skills - and should therefore in principle be a RP function, with appropriate costing out to TC as part of the cost-measurement programme.

155. A transfer of telecommunication to administrative services in RP would place the function where it conceptually, operationally and managerially belongs. In the world of today, telecommunication can rarely be separated from information technology as such and although the flow of work and the work process in the telecommunication and office automation is different, a transfer to RP of telecommunication would make it easier to explore the possibilities of restructuring telecommunication using modern, advanced methods.

156. One apparent problem with splitting Telecommunication and Registry is that it breaks the natural link between the movement of communications and the need to register this communication as relating to specific files in the organization. However, this is only a problem in the physical sense of having to move the items of communication around. If communications are centrally registered in for instance a computerized system of filing, the identification can take place as the communications are transmitted or received and the physical documentation - which in the future with the advent of the "paper-less" office, should anyway be reduced - can follow as appropriate.

157. The decision on whether to separate these two sub-functions of Telecommunications and Registry would have to be based on an extensive analysis of the work processes and work loads to determine exactly what is practically and economically feasible.
4. Suggestion for Future Organogram of Technical Co-operation Bureau

158. A proposed new organizational structure of TCB will need to take into account the changing role and approach. It would have to be suited to strengthen the planning and programming capacity of ICAO, emphasising the point that planning and programming for sectoral analysis and policy formulation is as important as operational aspects.

159. To emphasise this, a structure, consisting of the Planning and Programming Section (PPS), Field Operations Section (FOS) and the Operations Support Section (OSS) is proposed.

160. The Planning and Programming Section is the planning and programming capacity discussed in paragraphs 118-122. It should be a separate branch to underline the importance of this aspect of TC activities.

161. The Field Operations Section is the structure outlined in paragraphs 132 and 133 on the Global Field Operations and is as such the successor to the old field operations branch except for the single, global structure rather than sub-divisions into regional sections. One part of this branch is the implementation officers. Depending on their numbers - i.e. if more than five to six - separate sections for various functions or regions could eventually be created under the management of a senior implementation officer. A basic principle of management is that no more than five or six people should report directly to one person.

162. The advisory or support officers should be organized in a separate Operations Support Section to support all TC activities, not merely field operations although there will be a pre-dominant field perspective to it. All advisory officers and other support functions directly related to TC operations - such as PBO stripped of all non-field project and programme related financial functions - will be located here.

163. To illustrate these principles, the organogram in Annex III can be constructed. In this organogram, the OAU, the telecommunications part of Telecommunication and Registry as well as the non-field financial functions of PBO are transferred to the appropriate parts of RP.

164. This organogram is intended as illustrating the suggested principles behind the re-structuring. It is not final and it is hoped that the proposed initial comprehensive analysis of the work functions - combined with new strategic considerations of other important aspects such as fellowships; the use of associate experts and voluntary experts; reviewing and updating documentation; and more appropriate information flows to and from ROs - would provide the basis for further discussion and analysis of this to achieve the optimum organizational structure given the changing circumstances and the need for adopting a different focus of the TC programme of ICAO.
IV. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

165. ICAO technical co-operation activities have reached a critical turning point, and the persistent annual operating deficits of recent years are only a symptom of fundamental underlying changes. UNDP and the rest of the United Nations system are making major revisions in the way that they provide technical co-operation. There are now many more competing governmental, private, and research organizations eager to provide all kinds of services, including technical co-operation, to developing country governments. And the politico-economic environment, both globally and in such sectors as civil aviation, may well continue to be quite volatile and unpredictable.

166. The technical co-operation efforts of ICAO have not yet reacted in a coherent way to these changes. The Inspector found past ICAO activities very difficult to assess because of a lack of programme objectives, strategy, review, evaluation and follow-up. More important, however, the prevailing pattern of ICAO assistance - long-term, ad hoc expert projects - is less and less relevant to the new technical co-operation requirements being established by funding organizations.

167. Technical co-operation would seem to be quite an important part of overall ICAO work, as is true in other agencies of the United Nations system. Article 44 of Part II, Chapter VII of the Convention on International Civil Aviation (Sixth Edition, 1980) states inter alia that:

"The aims and objectives of the Organization are to develop the principles and techniques of international air navigation and to foster the planning and development of international air transport so as to:

(a) Insure the safe and orderly growth of international civil aviation throughout the world;

(b) ...

(c) Encourage the development of airways, airports, and air navigation facilities for international civil aviation;

(d) Meet the needs of the peoples of the world for safe, regular, efficient and economical air transport;

(e) ...

(f) Insure that the rights of contracting States are fully respected and that every contracting State has a fair opportunity to operate international airlines;

(g) ...

(h) Promote safety of flight in international air navigation;

(i) ..."

168. However, the October 1990 report to the Council on the future of technical co-operation observed that "no attempt to relate the programme to the overall objectives of ICAO was ever given serious consideration". The report also stated that, if a closer look should show that the programme purpose
is part of these objectives, then it would be timely "to integrate this programme in the overall structure and activities of the Organization". The sub-Working Group of the Council on technical assistance also recognized in early 1991 that in the future "a more positive, imaginative, and competitive outlook will have to be adopted", and that changes in management practices and attitudes would be an "essential prerequisite" if the ICAO TC programme is to flourish in the future (see discussion in paragraphs 36-37 and 16).

169. For all these reasons, the Inspector has looked forward, not back to past activities, in this study. She also endorses the basic belief stated in the Brown study that ICAO should not be an exception in the United Nations system. As in other agencies, ICAO's sector of interest is a global and interdependent one, and ICAO's prime objectives can be obtained only if the organization can assist developing countries to play their full part in fostering the planning and development of safe, orderly, and efficient international air transport.

170. This responsibility seems to require ICAO not merely to encourage action, but to actively assist all its contracting States to fulfill their obligations to this international system. This should also mean that the organization makes its regular programme skills and capacities available - even if only modestly - to support its technical co-operation programme. ICAO must define itself what specific relationship and priority the technical co-operation programme has within the overall activities of the Organization. Whatever the priority and funding levels will be, however, ICAO should strive to conduct a TC programme which makes maximum use of the limited resources available to best meet the needs of all its contracting States.

171. Based on her review, and assuming that ICAO will now establish a clear policy, priority, and status for technical co-operation, the Inspector concludes that ICAO needs much updated and more dynamic TC efforts. Change should begin with processes which enable ICAO to turn its past fragmented activities into a coherent and well-elaborated TC programme which can be steadily adjusted and improved in the future.

**RECOMMENDATION ONE:** ICAO should take the following actions to establish an integrated set of programme processes for its technical co-operation programme:

(a) systematically develop a much more competitive technical co-operation posture (paragraph 30);

(b) as an urgent priority, prepare and adopt a basic programme strategy (paragraph 47);

(c) fill the existing Evaluation Officer post as the focal point for structured programme monitoring, evaluation, analysis, reporting and follow-up (paragraph 58);

(d) include certain reporting topics in the periodic deliberations of its new Technical Co-operation Committee, with a concentration on results achieved and emerging opportunities (paragraph 64).

172. The establishment of these four programme processes is essential but not sufficient for a stronger future ICAO TC programme. Since nothing in an organization can work without people, the strategy, review, and oversight processes must be matched by building up an organization that works better than its competitors. And, since circumstances are always changing and the work is never done, this new
ICAO TC organizational structure must be a flexible, responsive one that lets people and organizational performance keep on improving. The specific organization structure will thus depend on the specifics of the basic programme strategy, and must change as the strategy changes.

RECOMMENDATION TWO: ICAO should develop an organizational plan based on the new technical co-operation programme strategy and on a comprehensive review of the work processes of the technical co-operation programme as they relate to the new programme structure. In drawing up the organizational plan, the Inspector believes that the following main organizational and functional issues must be considered:

a) Integration between the regular programme and the technical cooperation programme through the creation of a single budget to eliminate unnecessary functional barriers, and through the initiation of task-forces or inter-departmental committees between the regular programme and the technical co-operation programme to promote the direct involvement and responsibility of the entire organization for technical co-operation initiatives (paragraphs 70-104);

b) The operational comparative advantage of the Technical Cooperation Bureau is technical co-operation, and only functions and aspects directly relating to technical co-operation should therefore be in the organizational and managerial structure of the Bureau. Functions not requiring specific technical co-operation expertise should be handled by the similar functions in the regular programme (paragraphs 108-109 and 132-157);

c) The capacity for planning, programming and analysis of technical co-operation must receive a prominent role through the creation of a specific section or function responsible for providing appropriate planning and programming capacity, including the capacity for national capacity building, sectoral analysis and appropriate forecasting (paragraphs 110-122);

d) Operational flexibility has to be obtained by reconsidering the levels of functional coordination. It is imperative that as programme size changes, the organizational capacity changes accordingly. Under the present circumstances, it might be appropriate to implement a less rigid organization at headquarters along global, functional lines rather than regional sections, supported by de-centralisation of more functions to the regional level as the "front-line" of ICAO technical co-operation (paragraphs 123-135).

e) In each of these areas, the objective should be to streamline and strengthen technical co-operation operations through improved systems, technology, and structures. At the same time, the interests and concerns of ICAO staff should receive full consideration, since their skills, dedication and morale are the essential resources underlying an effective ICAO technical co-operation programme for the future.
ANNEX 1: COMPONENTS OF SUPPORT COSTS AS IDENTIFIED BY JIU (JIU/REP/77/6)

<table>
<thead>
<tr>
<th>1. Programme Support Cost</th>
<th>2. Project Support Cost</th>
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<tbody>
<tr>
<td>(Programme support costs are defined as that part of the support costs devoted to functions of technical cooperation which are not directly related to specific projects but arise from the inherent competence and capacity of an organisation in its particular field.)</td>
<td>(Project support costs are defined as that part of support costs directly related to specific projects)</td>
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<tr>
<td>a) Over-all direction, management and legal services;</td>
<td>a) Technical project support</td>
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<td>b) Participation in programme planning, country planning, sectoral studies, etc.;</td>
<td>- Participation in project planning;</td>
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<td>c) Research in development questions;</td>
<td>- Technical support and supervision of experts and consultations;</td>
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<td>d) Technical documentation services;</td>
<td>- Advice on training programmes;</td>
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<td>e) Participation in intergovernmental and interagency meetings on technical cooperation activities;</td>
<td>- Advice on equipment specifications;</td>
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<td>f) Writing, translating and printing of documents not related to specific projects;</td>
<td>- Technical reporting, including preparation of reports;</td>
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<td>g) Over-all budgeting and accounting work for UNDP;</td>
<td>- Participating in project evaluation, revision and planning of follow-up.</td>
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<td>h) Public information on technical cooperation activities.</td>
<td>b) Administrative project support</td>
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<td>- Recruitment of experts and consultants;</td>
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<td>- Personnel administration of experts and consultants;</td>
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<td>- Equipment purchase and inventories;</td>
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<td>- Training and fellowship administration;</td>
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<td>- Administration of subcontracting;</td>
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<td>- Project budgeting and accounting;</td>
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<td>- Administration of miscellaneous components.</td>
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**ANNEX 2: NEW UNDP SUPPORT COST ARRANGEMENTS: ILLUSTRATIVE LIST OF SERVICES**

<table>
<thead>
<tr>
<th>REGULAR PROGRAMME</th>
<th>TECHNICAL SUPPORT SERVICES</th>
<th>ADMINISTRATIVE AND OPERATIONAL SUPPORT FOR PROJECTS</th>
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<td>Programme Level (TSS 1)</td>
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<td>evaluations</td>
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**NOTES:** a. The items in italics are proposed by JIU based on the Components of Support Cost as identified by JIU.

**SOURCES:** UNDP document DP/1991/25 and UNDP Governing Council Resolution 90/26 (annex), JIU/REP/77/6
ANNEX 3: OUTLINE OF NEW ORGANISATIONAL STRUCTURE FOR TECHNICAL CO-OPERATION BUREAU

Director
Technical Co-operation Bureau

Planning and Programming Section
- Planning and Programming Officers
  - Resource Mobilization

Field Operations Section
- Implementation Officers
  - etc.

Operations Support Section
- Advisory and Support Officers
  - Fellowship
  - Contract Management
  - Procurement (CAPS)
  - External Resources (Recruitment)

Programme Budget Office

Registry

Notes:
- Telecommunication part of Telecommunication and Registry moved to RP
- Office Automation moved to RP
NOTES:

Chapter I


3. "Report to Council by the Chairman of the Ad Hoc Working Group of the Whole on Technical Assistance", ICAO documents C-WP/8882 of 7/6/89 and C-WP/8993 of 8/3/90 and associated working papers TA-WG, and


5. Ibid., Annex 5.

Chapter II


10. "Agency support costs - Successor arrangements", ICAO document C-WP/9032 of 28/2/90, sections 1, 2, 5, 14, 15.


26. Effectiveness of multilateral agencies, op. cit., pages xi-xii.


32. "Development of a strategic action plan to meet the major challenges facing civil aviation", C-WP/9307 of 30/05/91, and Addenda, and "First report to the Council by the Council Working Group on the development of a strategic action plan", C-WP/9427 of 28/11/91.


36. "TRAINAIR", TA WG-WP/7 of 8/1/90.

37. An evaluative assessment ..., op. cit., Chapter VIII, and United Nations system co-operation ..., op. cit., Part II, Chapter II.E.

38. United Nations system co-operation ..., op. cit., Part I, Chapter VII, and Part II, Chapter IV.D.


41. "Report of the Secretary-General on the structure ...", op. cit., Att. 1, paragraphs 22, 23(C), 26(A) and recommendations (h) and (q).

42. "Structure, operation and functioning of the Technical Assistance Bureau - ICAO should provide resources for an evaluation capacity", C-WP/9141 of 22/8/90.


44. Status of internal evaluation in organizations of the United Nations system, JIU/REP/85/10 of October 1985, Chapter XII.


46. Telecommunications development worldwide ..., op. cit., page 12.

47. "Note on the establishment of an internal evaluation system in the International Maritime Organization", JIU/NOTE/87/1 of April 1987.


54. Effectiveness of multilateral agencies at country level, op. cit., pages i, viii-viii.


56. United Nations system co-operation with multilateral financial institutions, op. cit., Part II, Chapter III, "Operational reviews".

Chapter III

57. No strategic planning documents dealing with these aspects have been presented in response to JIU enquiries. When ICAO officials were asked about this, the reply was that the Regional Air Navigation plans are the only strategic planning documents as such even though the plans have a significantly different focus than the kind of strategic plans called for here. In fact, ICAO working paper C-WP/9194 states that strategic planning of this kind has never taken place.

58. There was a "surplus" in the support cost earnings, because of the income from the high level of trust funds, especially in Saudi Arabia. This created a situation where the cost of providing additional support to additional projects (the "marginal cost") was less than the additional support income derived from these additional projects (the "marginal revenue").

59. Over 60 officials in RP and TCB, both at HQ and RO level, were consulted for this study and all were asked in one form or the other about this and all agreed in general with this point.

60. This was particularly the focus of the first study, where in the process of collecting data, very different and incompatible answers both in content and in methodology were given.

61. Actual figures were not available to the JIU despite the fact that this information is available within the organisation: the process would require going back through historical files since no structured, basic comprehensive information system is in place.

62. Several officials of ICAO, both at HQ and RO level, confirmed this, while at the same time indicating that the Regional Air Navigation plans were the most fundamental basis for the work of ICAO.

63. Several UNDP officials pointed out specifically this last point, by suggesting that ICAO should concentrate more on preparing appropriate country profiles covering strategic aspects of aviation in a specific country.

64. The working papers dealing with these aspects have been well covered in the first report of JIU on the TC programme of ICAO (JIU/REP/91/6).

65. This common basis does not now exist, as has been pointed out by top officials in ICAO responsible for finance and administration aspects, both in RP and in TCB (C/FIN, C/ADM and C/PBO-TCB), and it is not a RP versus TCB matter since even officials within both RP (C/FIN and C/ADM) and TCB (C/PBO-TCB and C/OAU-TCB) disagree with each other on the common basis.

66. This point was emphasized by many officials, including almost everyone in TCB and a few in RP to such a point that it seemed like a well-drilled lesson to excuse any lack of cooperation.
67. It is evident from a review of the extensive notes that JIU took during the interviews and discussions for both this report and the first report that no real fundamental functional difference could be demonstrated.

68. One example of the lack of understanding was that finance in RP failed to pay field staff quicker than HQ staff, which meant hardship for relatives of field staff based at home. It was made to be a major issue, but merely suggests that more awareness of the particular implications of TC work has to be promoted.

69. This comparison is part of a comprehensive internal JIU review of the TC operations of United Nations agencies. The particular information is based on Table A.1 and Table A.2 in UNDP Doc. DP/1990/72 where ICAO and IMO are listed as the only executing agencies of UNDP with no sources of funds from the RP (UNDP/OPS and ITC receive no RP funds as well, but these entities do not have a RP programme by definition; the World Tourism Organisation is an executing agency of UNDP, but not part of the United Nations system). In IMO, however, about 50 percent of total support cost for TC is covered by the RP, which merely signifies a different approach to the full conceptual integration.

70. From JIU’s comprehensive internal review of the structure, organisation and approach of TC programmes of the organisations of the United Nations system, op.cit.

71. The issues in this debate have been adequately covered in the first JIU report on the TC programme of ICAO (JIU/REP/91/6).

72. Steps towards this recognition might be the recent introduction in the Work Programme and Budget for 1993-95 of a TC element as part of the sub-programme of Technical Support in each programme in each major programme or bureau of ICAO (C-WP/9350). It remains to be seen whether this is just a mere ritual or application of a framework without regard to how TC aspects are actually perceived in the relevant programme and what priority they receive. One indication that this might the case, is that the programme format of the document is the standard, formalistic United Nations format. This is commendable for purposes of comparison and transparency, but rather inconsequential if, as in this case, a further analysis suggests that the actual connection between programme elements and output is either not stated - which is the whole purpose of the exercise - or is not done in such a manner that management by objectives can be carried out.

73. In the past, the JIU support cost principles have been discussed by ICAO in various TCB documents (e.g. C-WP/9217), but only in the framework of the financing of the TCB establishment and not in terms of the conceptual and functional integration between RP and TCB.

74. The idea of cost measurement systems was previously introduced by JIU (e.g. JIU/REP/74/7) but was dismissed at the time by United Nations agencies because it was not considered feasible. However, since then developments in cost-measurement methodology, the emergence of efficient and effective information technology systems and the introduction of similar systems in many project-based organisations, both commercial and governmental, has made it feasible to operate such systems.

75. This is very similar to the "hour billing" system used by many project-based, full cost recovery organisations.

76. WIPO has been operating such a system for a considerable time and should have valuable experiences to share.

77. One true cost that would be illuminating to know is the cost of servicing the council on TC matters. Informal estimates from several sources within ICAO suggest that 25% of all staff resources are indirectly or directly devoted to servicing the Council on RP matters. This apparently high cost might be a problem specific to ICAO, because ICAO is the only United Nations system agency with a permanent governing body in session. Others have, at most, a much smaller executive body meeting several times a year, but not as such in permanent session (e.g. UNESCO Executive Board and WIPO Coordination
78. UNDP has moved toward promoting a single uniform cost-measurement system not just as a set of principles, but as a fully developed, comprehensive package of an administrative and automated system.

79. ICAO documents supplied in the preparation of the Brown report state this.

80. WIPO is a prime example, where there are actual different legal organisations or entities within the overall organization: separate reporting of the cost of supporting the various conventions occurs because not all member countries are members of all conventions.

81. This would have to be supplemented with an assignment of higher priority to TC in the work and discussions of the other bureaux, so that direction can come from the top in all bureaux of ICAO. This point was strongly emphasized by many officials at the regional level.

82. One of the last initiatives or studies of this kind and one which might in some way act as this baseline, was the work done for the 1985 Working Group on the Examination of AOSOF Supported Establishment outside TAB (Report of 22-11-85). If at least had organisation-wide representatives and reached some common ground, although final agreement and maximum benefit were never reached.

83. The whole focus of the discussion concerning what to do with the so-called built-in-deficit has centred around cutting staff and how to finance a core group of staff by, for instance, RP support, without ever questioning whether the right type and structure of staff was already in place.

84. The move in TCB away from having its own technical aspects by abolishing the TSS was in this context a very appropriate one, despite the claims that the technical knowledge in RP is not TC-oriented (i.e. no hands-on experience). Technical knowledge should be in the RP: by changing attitudes and understanding, it can become TC-oriented.

85. This could take the form of position papers on issues in TC and Guidelines for dealing with other funding sources than UNDP.

86. There has been little consideration of this in ICAO during the entire discussion of establishment levels. In actual fact, JIU has only found one document dealing in any way with this aspect.

87. The World Bank is a prime example of this.

88. Obvious factors such as contacts in the region, language skills etc were suggested, but all of these are "non-technical" or non-professional skills, which further qualify people to pre-dominantly work in a particular region rather than disqualifying them from working in other regions.

89. JIU examined organizational structures and coordination levels of organizations such as other UN agencies, IATA, the World Bank and bilateral agencies with rotation principles in their foreign affairs and international development cooperation organizations.

90. The process of developing the fellowship system is, at least as explained by the users and some technical or systems people, a classical example of a centralised system design and development process gone wrong. The users were not adequately consulted, the specification bore little resemblance to reality and training and support is lacking to the extent that whatever part of the system has been implemented is not being used. Many ROs still do things manually, to the point that 80 percent of the time of General Service staff financed by AOSCF is spent on administering the fellowship programme. Considering that in 1991, fellowships were only 17 percent of total TC project expenditure (TAB management system printout, 30-8-91), it is clear that something needs to be looked at.

91. Several past documents of ICAO have suggested this, most recently in written comments to the draft of the first JIU report.
92. For instance, in office automation, TCB has traditionally been one of the heavy users and therefore could at one level justify their own operation.

93. Any postulated differences will be due to the lack of integration and understanding of the specific needs and requirements of individual tasks and initiatives. A proper setting of priorities communicated through the whole organization would go a long way toward removing any perceived differences.

94. In competitive terms, similar schemes within the civil aviation sector do exist (e.g. IATA) and unless the CAPS scheme is properly marketed, a potential source of income could be lost.

95. The Chief of Finance in RI, should, as the chief financial officer of the whole of ICAO, know what is going on in TCB in financial terms as well as in the other bureaux. But this does not seem to be the case.

96. The argument of speed and responsiveness is again a general problem, due to lack of integration, knowledge, familiarity and understanding between RI and TCB.

97. These efforts have resulted in some productivity gains, although there seems to be evidence that the main productivity gain expected from information technology has not been fully realised. This is the complete de-centralisation of automation tasks to, for instance, the point where the author of the original document drafts and processes it directly on the computer to avoid extensive re-typing. In general, ICAO, in common with the rest of the United Nations system, has often not properly considered the fact, that the use (in contrast to the technical design, support and operation) of computers and information technology is not a specialised task requiring professional information technology specialists, but something that should be part and parcel of any staff member’s set of tools, similar to the ability to use a pen or a telephone. The use of computers, including processing of data as appropriate, should be an integral part of the work process and not considered a task separate from the work process. For instance, if data is collected and processed as part of the work process of a particular function or staff, this same function should, when the data is used, also record and update the data. Often one will find that data is collected by one function, recorded manually - i.e. handwritten - by completing a form for data capture, which is then forwarded to a data processing function which will then actually enter the data in the computer system. This can be a costly and cumbersome procedure, creating backlogs of data which will result in the organization not being up-to-date in its knowledge.

98. For instance, the cost-measurement system of WIPO is using a centralised computer system requiring central control and analysis of allocations and distribution keys.

99. Interviews with relevant officials of ICAO have suggested this, supported by comments based on the work load analysis done prior to the specification of some of the TCB computer applications. (Unfortunately, the basic data for this were not available as it had been destroyed after its more immediate use). No actual, unbiased and independent data was available to substantiate this information.

100. Such modern advanced methods are computer conferencing, video conferencing, group-ware etc.