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(Second Part)

The future of the WEU Satellite Centre in Torrejón

REPORT

submitted on behalf of the Technological and Aerospace Committee
by Mr. López Henares, Rapporteur

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1. Adopted unanimously by the committee.

2. *Members of the committee:* Mr. López Henares (Chairman); MM. Lenzer, *Borderas* (Alternate for Mr. Palacios) (Vice-Chairmen); MM. Arata, *Atkinson*, Biefnot, Blaauw, Mrs. Blunck, MM. Böhm, Coviello, *Curto*, Mrs. Gelderblom-Lankhout, Mrs. *Gui-rado*, MM. Jeambrun, Le Grand, Litherland (Alternate: *Alexander*), Lorenzi, *Marshall*, Palacios, Poças Santos, Pozzo, Roger (Alternate: *Galley*), Sarens, *Theis*, Sir Donald Thompson, MM. *Valleix*, Wolfgramm.

N.B. *The names of those taking part in the vote are printed in italics.*

Draft Recommendation

on the future of the WEU Satellite Centre in Torrejón

The Assembly,

- (i) Welcoming the fact that the WEU Satellite Centre has achieved its logistical targets;
- (ii) Congratulating the Spanish authorities responsible for building the centre for having provided it with the means of operating effectively;
- (iii) Recalling that this centre is unique as a result of international co-operation and has been designed to contribute to peace-keeping and international security;
- (iv) Congratulating the Director and the staff of the centre on the very substantial sterling work they have done there;
- (v) Judging very favourably the number and nature of the treaty verification and crisis-monitoring tasks assigned to the centre;
- (vi) Regretting, however, that environmental monitoring tasks assigned to the centre are few and far between;
- (vii) Noting that so far certain member states have not tasked the centre at all and wondering about the reasons for their not doing so;
- (viii) Believing that the period for assessing the work of the centre is not long enough for the assessment to be entirely fair and valid;
- (ix) Considering that there is a risk of the satellite centre's present temporary status being prolonged and that it might not therefore be able to carry out its work in the optimum conditions for achieving its aims;
- (x) Considering moreover that the centre, although in its infancy, is an important example of measures to be taken for the progressive creation of a European defence identity;
- (xi) Taking account moreover of the fact that the centre will be able to have the benefit of Helios satellite images only after summer 1995 at best;
- (xii) Reaffirming that the Torrejón Satellite Centre must be the cornerstone of a complete European space-based system covering intelligence, early warning and defence;
- (xiii) Believing in any event that the future of the centre should not be indissolubly linked to that of a European space-based observation system;
- (xiv) Insisting on the urgent need for the centre to be as widely supported as possible by public opinion if it wishes to attain its goals of providing Europe with a useful security instrument in the widest possible meaning of the term,

RECOMMENDS THAT THE COUNCIL

1. Take a decision as soon as possible that will guarantee the continuity of the Satellite Centre by making it permanent, so as to avoid a temporary situation being maintained to the detriment of its work;
2. Establish a method for continuously assessing the work done by the centre so as to optimise its capabilities at all times;
3. Keep the Assembly informed of the practical details for implementing the memorandum of understanding on the Helios satellite signed by WEU and the governments of France, Italy and Spain;
4. Encourage the member states to avail themselves of the services of the centre, especially those which have not yet done so;
5. Urge member countries to make use of the services of the centre more regularly, in particular by giving it environmental monitoring tasks (disaster relief, control of water supplies, population movement, hazardous activities, control of nature of terrain, control of illicit movements);

6. Establish relations with the European Space Agency in order to determine possibilities for co-operation between the two organisations in space-based observation;
7. Study the possibilities of technical and commercial space co-operation with the CIS countries in order to allow the technical and human resources of those countries to be used for preventive and peaceful purposes;
8. Inform public opinion in Europe of the tasks and work undertaken by the Torrejón Satellite Centre in order to promote a better understanding of such tasks among the citizens of the European countries and to obtain their support for the aims of the centre.

Explanatory Memorandum

(submitted by Mr. López Henares, Rapporteur)

I. The WEU Satellite Centre in Torrejón – the position today

1. On 27th June 1991, the WEU Council of Ministers, meeting in Vianden, Luxembourg, decided, under Article VIII.2 of the modified Brussels Treaty, to establish a Satellite Centre: "With the aim of intensifying space co-operation within WEU and giving concrete expression to that co-operation, ministers decided to: set up a satellite data interpretation centre whose immediate task would be to train European experts in the photo-interpretation of satellite-derived data, to compile and process accessible data and to make those data available to member states, particularly within the framework of arms control agreements, crisis-monitoring and environmental monitoring. The activities of the centre will be reviewed no later than three years after it has entered into operation."
2. The WEU Council of Ministers subsequently decided at its meeting in Bonn in November 1991 that the centre for interpretation of satellite data and training was to be located in Spain.
3. To this end an agreement was signed between WEU and the Kingdom of Spain whereby

Spain would make available land situated at the Torrejón air base and a building thereon for the headquarters of the Satellite Centre. This agreement was signed in Paris on 1st December 1992 and submitted two months later to the Spanish Parliament for ratification.

4. The centre's facilities were officially inaugurated by the Spanish Minister of Defence and the Secretary-General of WEU on 28th April 1993. The Technological and Aerospace Committee had the opportunity of visiting these facilities in November of the same year and noted with great satisfaction the high architectural standard of the building and its functional suitability for this first tangible project initiated by WEU.

5. Thus the centre, under the management of Mr. Blaydes and a steering committee composed of a representative from each of the nine member countries, embarked upon its experimental phase with a budget ceiling of 38.25 million ecus.

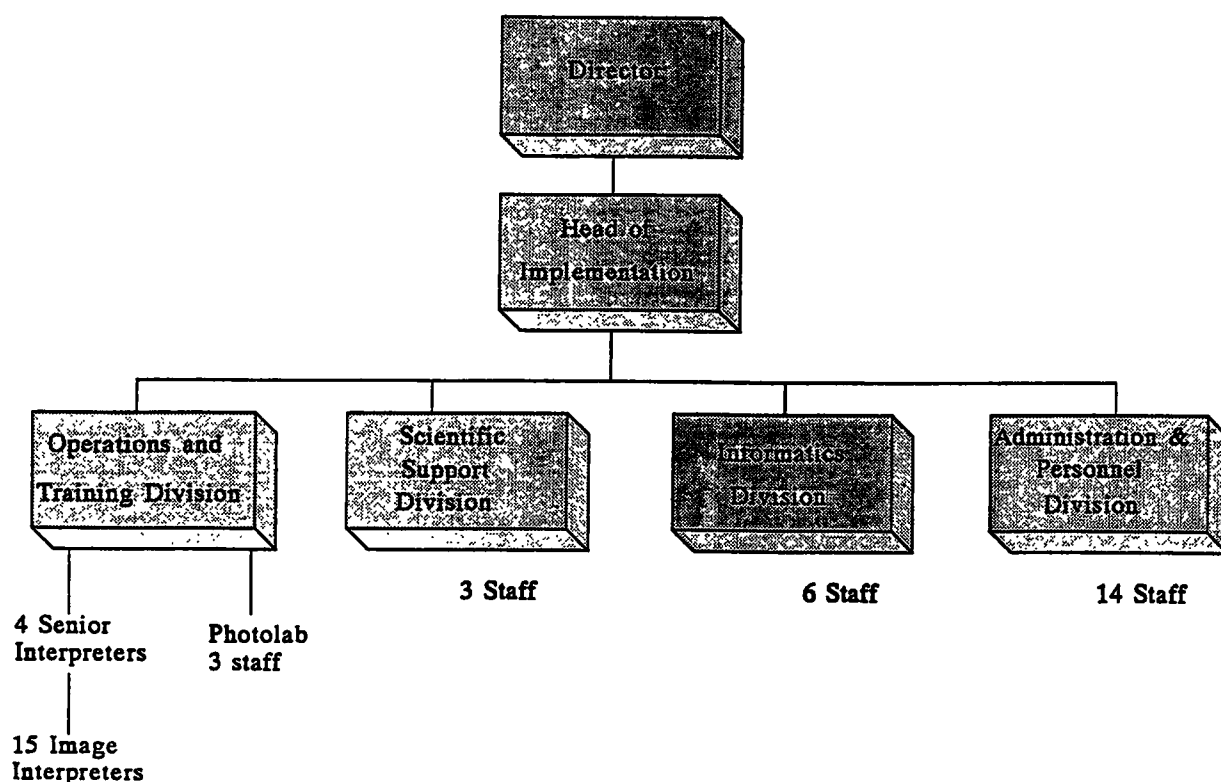
6. This first or experimental phase includes staff recruitment, building conversion work, installation of equipment, staff training and definition of tasks (Table 1).

TABLE 1
WEU Satellite Centre experimental phase

	91	92	93	94	95
Ministerial Decisions	◆ ◆			◆ ◆	
Staffing		▒	▒		
Building		▒ ▒	▒		
Equipment		▒ ▒ ▒ ▒	◆ ◆ ◆		
Training			▒	▒	
Tasking			▒ ▒	▒	▒

7. The organogram of the centre is shown in Table 2. Recruitment of staff has now been completed.

TABLE 2



8. Moreover since March of this year the centre has had all the equipment necessary for the experimental phase and the training phase has been satisfactorily completed. Until now there have been no outside requests for training, which is perhaps only to be expected given the centre's present stage of development.

9. The tasks assigned to the Torrejón Satellite Centre for 1994 were as follows:

(i) *Treaty verification:*

- support to CFE and CSCE inspection visits 4
- support to Open Skies missions 2
- non-proliferation treaties 0

(ii) *Crisis monitoring:*

- preparation for humanitarian aid 5
- support in preventing non-compliance with sanctions 1
- detection of military movements 7

(iii) *Environmental monitoring:*

- disaster relief 0
- control of water supplies 0
- population movement 0
- hazardous activities 0
- control of nature of terrain 2
- control of illicit movements 1

10. The various dossiers are made up by interpreting and blending data from optical satellites (mainly Spot and Landsat) and ERS-1 radar satellites with other non space-based information.

11. Anticipated future sources of data might include high resolution satellite and radar and airborne imagery.

12. Additionally the centre pays close attention to collateral information which it regards as most important. This includes: geographic data: paper maps and digital terrain data; treaty related data; data bases of militarily significant installations and structures; locally generated situation reports and aerial imagery.

13. Users of the centre in order of priority are: first, the Council of WEU and its subsidiary bodies, second, the member states in preparing WEU actions and decisions and third, the member states for their own needs. At present, according to the information available to your Rapporteur, only three member states (Spain, France and Portugal) have not yet tasked the centre. Apart from the users referred to above other non-WEU organisations may task the centre if the WEU Council sees fit.

14. The procedure followed in relation to tasking by a member state is as follows: once the task has been commissioned the centre prepares a task

analysis report. The user and the centre then negotiate the details of the task, including any collateral data to be supplied. Next the user committee fixes the priorities of the tasks and finally the centre gathers the images, interprets them and produces the dossier. Any other member state may request a copy of a completed dossier.

15. The building in which the centre is accommodated, as stated above, is ideal for the work carried out there. The main buildings consist of an operations centre where image interpreting is carried out, a quality control area, the photographic laboratory and the archives and documentation room plus administrative offices. Additionally there are rooms fitted out as "National Cells", to be occupied by staff from the different member states and which are intended as points of contact between the latter and the centre.

16. Reference was made earlier to the fact that the equipping of the centre was completed in early March 1994 by the Falcon consortium consisting of ten companies, led by the British company Cray Systems. The information your Rapporteur has on this equipment indicates that the system can be fed by satellite scenes arriving at the centre through various media. After image quality control, these scenes are fed in to the on-line library.

17. The library contains all the other information in the centre's data-base (a list of this information was given previously). Access to this data base may be gained through one of the centre's six "Browse" work stations.

18. The scenes for interpreting are sent to one of the eight dual-screen workstations for processing high resolution images. In addition to the software which gives access to the data base these stations use the Ocap and Erdas packages for handling and blowing up the images, taking measurements and creating new products such as annotated diagrams of the site to be analysed. A further five workstations handle quality control and network management. All the system facilities are connected up through a flexible, high-speed network, which also allows data to be transferred to the photographic laboratory while the digital data is transferred to films using the high resolution laser film writers. The processed version of these films and the end product are produced in the laboratory. Finally one should add that the centre is capable of interpreting not only images captured from satellites but also airborne images.

19. All the foregoing information shows first that the implementation of the logistical aspects of the programme – building, staff, installation of equipment, training and methodology – was carried out highly satisfactorily.

20. There is no doubt that congratulations are due given the progress achieved starting from

nothing. They are especially due to the Director of the centre and his staff for the work they have done which is now starting to show results.

21. An assessment still has to be made of the work done and the results obtained: this assessment should basically be undertaken by the centre's users, an aspect discussed further below.

22. At the meeting of the WEU Council of Ministers held at the Kirchberg Centre, Luxembourg on 9th May, ministers confirmed "the aim of further developing WEU's capability to use satellite imagery for security purposes. In this context, they envisaged establishing the WEU Satellite Centre at Torrejón as a permanent body of the organisation and would take a decision on this point in the light of the assessment of the work undertaken by the centre during its experimental period. They recognised the need to take appropriate decisions in November 1994 to ensure the continuity of the centre's work until that assessment was completed". Moreover, the Ministers reaffirmed "their will to set up an independent European satellite system. A decision would be taken subject to assessment of the costs and merits of the proposed system and of other WEU alternatives and affordability. To prepare a possible decision of a launch of such a programme, ministers tasked the Space Group to prepare, for their spring 1995 meeting, a proposal for a decision, including the preparation of a draft memorandum of understanding containing the detailed specifications, to be concluded between the present WEU member states".

23. As far as the Torrejón Centre is concerned it would be reasonable, before reaching a decision which would give it permanent status, to have the result of the assessment of its initial phase and of the work done. This assessment would be based on evaluations from the Council and the centre's users.

24. It must first be recognised that such an assessment will lack a sufficiently distanced perspective to be entirely fair and valid. Moreover, it should be stressed that the risk of the present temporary status of the centre being prolonged is hardly helpful to the work of the centre and does nothing to contribute to the peace of mind of the staff who work there.

25. It should also be remembered that the day before the inauguration of the Satellite Centre, the Secretary-General of WEU, the French and Spanish ministers of defence and the Italian ambassador to Spain signed a memorandum of understanding for the Torrejón Centre to have access to images obtained from the Helios I satellite; these images, when processed by the centre, will be particularly suitable products for implementing its aims of verifying disarmament treaties, crisis-management and environmental monitoring.

26. The Helios I programme, a co-operative venture between France, Italy and Spain, will use optical observation satellites for military purposes. The launch, initially scheduled for last September, will now take place around February 1995. In any event the centre will not be able to receive Helios images before autumn 1995. The centre is presently also studying the practical aspects of implementing the memorandum of understanding reached between WEU and France, Italy and Spain, and is to submit a series of requests in this connection and await the replies.

27. From the above, it is clear that the assessment cannot possibly take account of work based on Helios 1 data, which manifestly limits the scope of the assessment.

28. Finally, it should be added that your Rapporteur will not discuss the question of the European space-based observation system as this is the subject of another report by the Technological and Aerospace Committee.

II. Conclusions

29. It should be emphasised at the outset that our particular committee and the Assembly in general have in recent years constantly reiterated that the Torrejón Centre should be the cornerstone of a complete European space-based system covering intelligence, early warning and defence. The Torrejón Centre might become the integrated data-receiving and interpretation centre of this space-based observation system and its earth sector. Having said this, it must also be stressed that even in the undesirable event of the space sector of the future European observation system never coming to pass, the Torrejón Centre would continue to be absolutely necessary. Apart from image interpretation, its tasks might include all types of military intelligence work, leading ultimately to the preparation of a final report with tactical and strategic value.

30. Recent Iraqi troop movements close to the border with Kuwait have again demonstrated the need for Europe to have its own means for obtaining accurate knowledge of risks and threats to its security and of their source. Your Rapporteur wrote to the ministers of defence of the member states participating in the Torrejón Centre inviting their governments to give their opinion on the future of the centre. Two months after the letter was sent to the defence ministers, followed by a reminder a fortnight later, only the ministers of Belgium, Germany, Luxembourg, Netherlands and the United Kingdom had replied.

31. Mr. Delcroix, Minister of Defence of Belgium, informed us that he was not able to anticipate his government's position on the future of the Satellite Centre even though it seemed to him rea-

sonable to think that Belgium would agree to financially acceptable proposals for extending the experimental phase in order to draw conclusions from information that was as extensive as possible. Moreover, the minister asked a number of questions, inquiring particularly as to whether it was possible to continue with this experiment in the absence of a common position on the nature of WEU's needs and on identifying them; he also wondered if the decision to give the centre permanent status and the decision as to whether or not to develop a European space-based observation system should be closely linked. Mr. Voorhoeve, Minister of Defence of the Netherlands, which now has the Chairmanship-in-Office of WEU, replied that discussions in the organisation on the future of the centre had barely begun and the centre's experience in processing and analysing satellite images would, moreover, still be very limited at the end of 1994. Therefore, in his opinion, at the meeting on 14th November 1994, the ministers might decide on an interim evaluation of the work of the centre and, on the basis of this interim evaluation, take a decision on the future of the Satellite Centre, probably at the ministerial meeting in spring 1995.

32. The French Prime Minister, Mr. Balladur, expressed himself more openly during his recent address to the French Institut des Hautes Études de Défense Nationale (Paris, 6th September 1994), when he stated: "In WEU, in a resolutely multilateral framework, the Torrejón satellite image interpreting centre shows the way. From next year the centre will benefit from Helios satellite imaging. From then on, matters should be taken further and consideration given to implementing a fully-fledged European space-based satellite observation system. Europeans have both the technological capability and the financial means. The decision was taken last May by the WEU foreign affairs and defence ministers to examine how such a project might be implemented. I hope that this decision will be implemented in full in the years to come as precise intelligence and real time surveillance of situations and their development are now essential factors in present-day crisis-prevention and management. I am counting in large measure on the bilateral co-operation structure created with Germany to give the necessary impetus to these projects."

33. The Council of Ministers of WEU which is to meet in Noordwijk on 14th November 1995 will agree to extend the Satellite Centre's experimental phase by one year to enable the evaluation of its work to be completed so that a final decision can be taken. In any event, your Rapporteur feels that the decision to be taken next year cannot once again be a provisional one and should be based on the obvious need for the centre rather than merely on its practical use as demonstrated by the evaluation. The evaluation by users and member coun-

tries, once completed, is to be presented by the Space Group to the ministerial meeting in May 1995 and will cover both technical and operational aspects. According to information in the possession of your Rapporteur, a possible pre-operational phase is at present being considered for the period 1996-97 when Helios I will be in operation and it will be possible to verify the usefulness and effectiveness of its images.

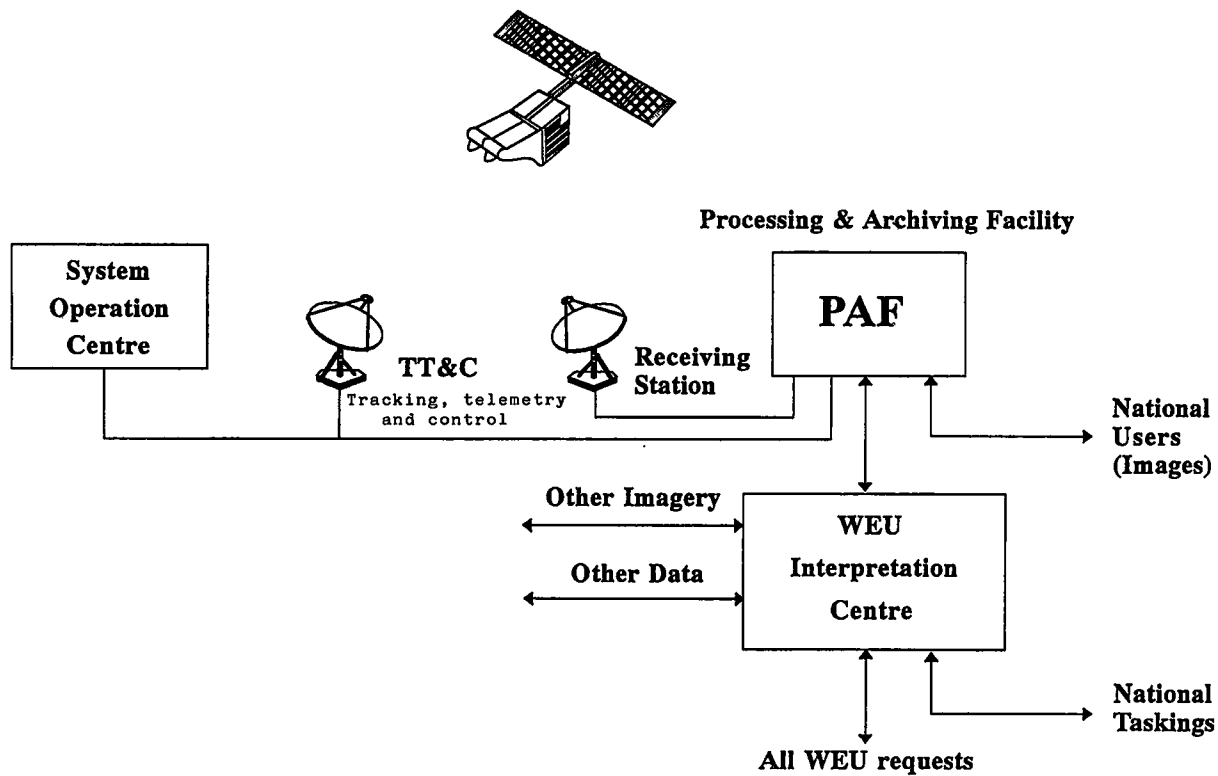
34. If the centre were to be made permanent a whole range of problems, not least that of staffing, would be resolved; however, additionally and independently of this fact, there could be regular evaluations of its work which would contribute to maintaining operational levels and capabilities necessary for our security needs and for providing Europe with efficient independent means in this area.


35. Our committee, with commendable perseverance, has, in recent years, exerted unremitting pressure in favour of Europe's acquiring autonomous space-based observation capabilities; these, when linked to an early warning sys-

tem, would make it possible for Europe to have its own defence system; we have stressed both the political need for such a venture and the presence of industrial capacities necessary for achieving it; we have moreover suggested opportunities for co-operation – particularly with our American allies – which ought to cover both production and development and be pursued as in Europe between Europeans. At present, WEU is on the threshold of a number of decisions tending in the direction just described. There is no other way forward if our organisation is to become the defence arm of the European Union than to progress with caution down this road, subject to such financial and budgetary constraints as may be necessary, but with the firm intention of making sure that space is a means of political independence for Europe: the use of space can indeed contribute to security in the widest sense, extending beyond military applications to environmental tasks, agriculture and into areas such as the monitoring of certain forms of illicit traffic by sea which are currently giving rise to major anxiety.

APPENDIX

Earth observation and interpretation systems – WEU Satellite Centre perspective



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