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The unified Command Plan and C³I
Frank B. Horton

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The Unified Command Plan and C³I

Frank B. Horton III

Major General Horton was appointed deputy chief of staff for Intelligence, Headquarters Strategic Air Command, in 1990. After completing West Point and Air Intelligence School, Horton was assigned to SAC headquarters as a computer programmer and systems analyst. His positions have included: National Security Council staff, operations analyst at Headquarters 7th Air Force; teaching at the U.S. Air Force Academy; planning and programming officer at Plans and Operations, Headquarters U.S. Air Force; assistant deputy commander and then deputy commander for maintenance, 351st Strategic Missile Wing; commander of the 351st Combat Support Group; vice commander 44th Strategic Missile Wing; commander 321st Strategic Missile Wing; director of command control, Deputy Chief of Staff, Operations, SAC Headquarters; deputy director for the national strategic target list, Joint Strategic Target Planning Staff; chairman of the National Intelligence Council, CIA Headquarters; and deputy director for foreign intelligence, Defense Intelligence Agency. Major General Horton was awarded several military awards and decorations. He has earned several academic degrees, including a masters degree and doctorate from Harvard University.

Oettinger: It is a great pleasure to welcome our guest today. You have his biography in hand so I won't recap all of his career. I just want to underscore with some warmth our pleasure at greeting here an alumnus of the Kennedy School with both an MPA and a doctorate — so for him it is kind of a homecoming and we are doubly glad to have him with us. I give you General Doctor Barry Horton.

Horton: Thank you very much. It is my pleasure and privilege to be with you all today. I look at the distinguished company that has addressed this group over the years in the past, and I am honored just to be a part of it. And I bring you greetings from General Lee Butler, my CINC (Commander in Chief), who would have brought them himself, but he is tied up with other activities, so I am pleased to be representing him here today. I have some slides but I would like to hold them until later. First, I'd like to provide a verbal overview of what is happen-ing in the Department of Defense with regard to the unified command plan, the supporting commands, and the implications for C³I (command, control, communications, and intelligence), with emphasis on intelligence. If at any time you want to break in and ask a question or make a comment, please feel free. I don't have a prepared text per se, although I certainly have some things in mind.

As a broad overview, we're all familiar with the major changes that are taking place in the world and here at home. It was clear that it was time to change the way the Department of Defense and the U&S (unified and specified) commands within the Department of Defense were organized. Among other things, we need fewer of them as we are downsizing to match new challenges, including the challenge of a shrinking budget and shrinking manpower. So in order to maintain some sort of a reasonable tooth-to-tail ratio, we need fewer headquarters, as well as smaller headquarters, and perhaps to consolidate

some forces that heretofore have been maintained separately, so that they are organized, trained, and equipped as we would fight. And we took a look at recent conflicts and projected future conflicts to determine a smart way to do that.

When General Butler came in as the CINCSAC in January of 1991, just a little over a year ago, he had just been the J-5 and had been challenged by the chairman of the JCS (Joint Chiefs of Staff) to come up with a unified command plan draft that would shrink the number of U&S commands in half, just for starters, from ten to five. A straw man was developed and vetted about the services and began to be vetted about the U&S commands themselves. It became apparent that that was trying to do too much, too soon, both for external reasons and internal reasons. General Colin Powell, Chairman of the Joint Chiefs of Staff, had given a hint, perhaps, as to where he might wish to go in his public utterances when he indicated that we have four mission areas and four support areas. The mission areas were Atlantic, Pacific, Strategic, and Contingency, and the support areas were Transportation, Space, Reconstitution, and Reserves. But when asked, "Is that your unified command plan that you were going to propose?" he deftly stepped aside and said, "Well, this is not necessarily how we will be organized, at least not right away." But a step had to be taken to show momentum in the direction he might hope to carry the unified command plan. And that initial step was the creation of the United States Strategic Command, a command that is to stand up on the first of June 1992.

What neither General Powell nor General Butler anticipated were the immediate ramifications of standing up the United States Strategic Command in terms of how it would affect the various components. It became apparent very quickly, though, that Strategic Air Command, if it were still to exist as a major command, presumably dedicated to the support of Strategic Command, should not be so dedicated because the tankers and bombers and reconnaissance also needed to be prepared to be put at the disposal of the regional unified and specified commands, as they were to USCENTCOM (U.S. Central Command) during Desert Shield and Desert Storm and as they were years before to USPACOM (U.S. Pacific Command) in Southeast Asia. We saw such a shift as an aberration in Vietnam. By the time of the war in Southwest Asia, however, it was no longer seen as an aberration but rather as the rule for future conflict.

Furthermore, we in the Air Force knew that we were going to have to come down in terms of our end strength. We were going to have to come down in terms of our headquarter's strength, and the smart way to do that was to come down in terms of numbers of headquarters to get some economies of scale. We thought we could, in the process, combine some forces in a way that organized in peacetime as we would fight in wartime. So it quickly became apparent that a new approach would be good to take, and we decided to stand down three major commands — SAC, TAC (Tactical Air Command), and MAC (Military Airlift Command) — and stand up two new commands, those being the Air Combat Command, to be headquartered at Langley Air Force Base where TAC has been, and the Air Mobility Command at Scott Air Force Base, where the Military Airlift Command has been.

Initially, the thought was that all of SAC's assets would be assigned to Langley to Air Combat Command. But General Mike Low and General Butler — General Low being the commander at Langley, and Butler at Offutt — jointly proposed to General H. T. Johnson, the commander at Scott, that perhaps the air refuelers, at least those not in composite wings, should belong to the Air Mobility Command. We needed to have forces that take other forces to the theater of operations in one command, and then put those forces that actually deliver weapons within the theater in another command. And we will then be, in fact, organized in peace as we would fight in war. The tankers and the airlift will work together in one command, and the fighters, the bombers, the reconnaissance and incidentally, the missiles (since moved to Air Force Space Command), will be tied together in another command. They'll train together, they'll exercise together, they'll be in plans together, and they'll fight together. And they will be prepared to deploy and chop, as we say, to the control of the unified commanders anywhere around the globe. They will not be dedicated to a particular commander, but they'll be available to all commanders. And on any given day, you might find the fighters and bombers of Air Combat Command, some of them devoted to an exercise in Europe, some devoted to another exercise in the Pacific, still others to an exercise in Central Command, still others on nuclear alert in support of Strategic Command, and so on.

What you're getting into in an era of scarce resources is an approach that is often taken in such an era — matrix management — in which the top of the matrix is the unified and specified commands

and the side of the matrix has what you might no longer call components, which implies dedication to a particular command, but force providers, who will provide forces as directed by the JCS and the National Command Authorities to whichever commands may need them on a given day. And that may change from day to day.

Oettinger: Was the matrix management thing a conscious decision, or did it just happen that way?

Horton: Well, sort of both. It became apparent that we were going to have to move in this direction, and so we made a conscious decision to move and perhaps get out ahead of the requirement, which was closing in on us anyway. We wanted to do it in advance of the requirement becoming so obvious that we could not get around it, because Europe and the Pacific may be for now an exception to what I've just said, and the matrix management approach applies for now primarily to the so-called have-not commands such as CENTCOM (Central Command) and SOUTHCOM (Southern Command). But in time, as we draw more forces back to the United States, or as forward basing is less available to the United States, a bigger proportion of our forces available for combat in Europe and the Pacific may be CONUS-based. One result may be that a Korean might emerge as a commander on the Korean Peninsula, and a European might emerge as the commander on the continent of Europe.

In time, our forces are going to be primarily based in the United States, and primarily serve as an expeditionary force falling in upon a cadre that is perhaps a corps size in Europe, but perhaps of lesser size elsewhere. We need to be able to move out and plug in wherever we go, which has tremendous implications for C³I because we will have to have a requirement for standardization and interoperability not only among the services, but also among the United States and its coalition partners and allies anywhere in the world, and among force providers and the U&S commands to which we are matrixed anywhere in the world, working with those coalitions. It has to be transparent to the forces that are being provided as to whose joint intelligence center you plug into, whose command and control system you plug into. The primary differences that should appear in standardized databases would be the latitudes, longitudes and place names. Of course, there will be some other differences as well, in terms of culture, politics, and economics, but in terms of the mechanics of the process, it should look functionally identical. Wherever you go, you need

to be able to hit the ground running, so to speak, enabled to go to war even if you have only five days of preparation, because it looks just the same. And you have to be able to exercise this in peacetime as you're going to fight. These deployable forces need to be prepared to exercise as they would fight in Europe, in the Pacific, wherever, or at least participate in some of the computer simulation exercises if we can't afford a robust overseas exercise program, to allow us to wring out some of the procedures, some of the protocols, and some of the standards that we need.

Oettinger: Could I ask you one question on that score? When I hear "standards" and "interoperability," I tend to equate that in my mind to the Holy Grail that has been chased for the last 40 years under much more stable conditions, and not attained. The reality to me is that both military and civilian facilities, which may be even of more importance in the future, are disparate cats and dogs. Was there a conscious choice made to avoid a sort of program of adapting to wherever you go, as opposed to an effort to go toward worldwide global uniformity? Is this a conscious trade-off?

Horton: I think it was a convergence between the two in time and it has become more apparent than in the past. We've always known that it would in theory be a good idea to standardize and be interoperable, but it wasn't absolutely necessary. A case in point: we at SAC were known for not being standard and our excuse was, "Well, the SIOP (single integrated operations plan) is a different thing and as long as we are interoperable among ourselves — our war-planning system, our supporting intelligence system, especially the command and control system — that's enough. But now, we recognize that if the primary operational mission of bombers, let's say, is conventional support to a theater CINC, and the secondary mission of these bombers now taken off on nuclear alert is the ability to return to nuclear alert and be a part of the SIOP, suddenly we're faced with the notion that just being interoperable within the SIOP world won't work. We've got to be interoperable in the larger world. We've got to be able to go support a CENTCOM, a EUCOM (European Command), a SOUTHCOM, or a PACOM (Pacific Command) with equal facility.

To facilitate that, we at SAC need to adapt our SIOP blinders-on approach to the rest of the world, including things like open architectures, getting off a big mainframe and onto a distributed system around the local area net, and we are in the process

of doing that. It will take time, money, and a lot of effort to do that, but we are moving in that direction. We just had a briefing in Washington this week that went to Mr. Steve Shanzer who is the DOD Intelligence Information System (DODIIS) Manager for the Defense Intelligence Agency (DIA) — and to Major General Rich O'Lear — the chief of intelligence for the Air Force — and our concept has been accepted. We're moving out smartly and in time; we're going to get off that big mainframe and have a lot of applications on smaller computers that are tailored to the particular part. Others recognize the same thing. The Navy recognized it in Desert Shield and Desert Storm. If you're going to be a part of the ATO (air tasking order) that is created by JFACC (Joint Forces Air Component Commander), then you've got to be able to receive that tasking order in good order and carry it out in an integrated way. On the carriers, that was not easily done in Desert Shield/Desert Storm.

Student: It wasn't easily done at all. It took flying a plane to each carrier every night and then distributing via helicopter, rather than electronically.

Horton: And in order to fix that, we have had for some time in the United States Air Force a general officers' steering group for what they then called "Tactical Battle Management." It has now been expanded to include SAC and MAC, and we've renamed it Theater Battle Management. It's taken on a much more urgent priority and a higher visibility as a result of Desert Shield and Desert Storm, and we've invited the Navy, the Army, and the Marine Corps to join us; they're in an observer status now. The hope is soon to make that a full voting status. I've recommended to the J-7 and to the Air Force Director of Plans that we now legitimize this process under the aegis of the J-7 of the JCS. I proposed that the Vice Chiefs and Vice Chairmen in the JROC (Joint Requirements Oversight Council) role pay attention not just to hardware, but also to C³I, and not just to particular elements of C³I but to the architecture and the concept of operations of C³I that tie everything together. The idea would be to get an imprimatur from the JCS on that architecture, and then make sure everything that we build flows from that architecture, for a variety of contingencies in the future, bringing ops and intel together for all the services and for our allies. It's a big challenge, but one we're finally beginning to grapple with in a serious way with the people who can make it happen.

But let me back away from that for a moment and return to what's happening out at Offutt Air Force Base, in the context of the larger picture that I've painted for you. First of all, the new Strategic Command symbol contains a lot of the old SAC symbols, including the marked fist, but we have the three legs of the triad in there and we have not just clouds, but waves. And we have the gold Navy rope around the exterior. This was a joint project of General Butler and Vice Admiral Mike Colley, the Vice Director of the JSTPS, and has the blessing of the Air Force, as well as of the Navy, and has now been submitted for approval to the Army's heraldry institute, which is the final authority on such matters.

Strategic Command (figure 1) will have a four-star CINC who will either be Air Force or Navy, but initially Air Force: General Butler. This first time the Navy will provide a three-star vice commander, and the next time it will be Air Force, with a command group and the usual special staff below, although it'll be a smaller special staff than SAC had because it doesn't have all the responsibilities of a major command, with the requirements for a uniform code of military justice, enforcement, and so on. Then down below, here's the classic J structure: the J-1 will be an Air Force colonel; the J-2 will be either an Air Force or a Navy O-8 — two-star — with either a Navy or an Air Force O-6 deputy. It probably will begin with an Air Force O-8 and a Navy O-6, although that's not yet announced. The J-3 and J-4 combined operations and logistics here because there isn't all that much logistics, given the current concept of what Strategic Command is all about. That could change in time, but at the moment it is combined, and will be either an Air Force or a Navy O-8, with either a Navy or an Air Force O-7 deputy in this case. And initially, that will probably be a Navy two-star with an Air Force one-star deputy. The J-5 Plans and Policy will probably be an Air Force two-star to begin with, next time Navy, with a Navy one-star deputy, next time Air Force. And then the J-6, the command and control person, will probably be a Navy one-star with an Air Force colonel deputy, although there are candidates in this case in both services, so that one is still somewhat in doubt.

The ratio then will either be five Air Force and three Navy, or four Air Force and four Navy, which is what the Navy wants. We'll all know for sure about that very shortly. This will leave a total of eight flag officers at Offutt Air Force Base, where there had been 18 up to now, one of whom was
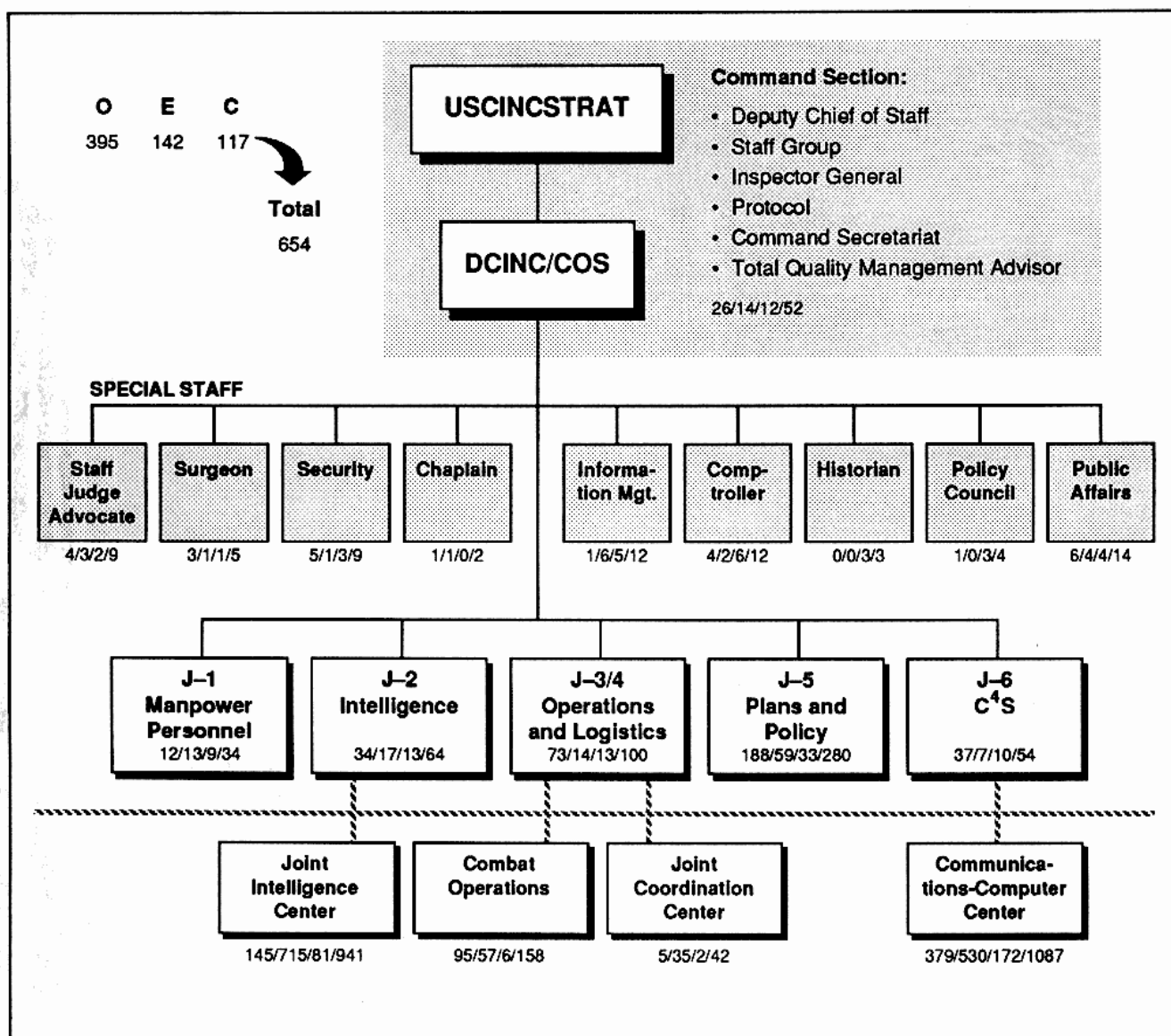
Figure 1

Strategic Command Structure

Navy and the rest were Air Force. So we are shrinking dramatically in the flag representation there on general's row — old Fort Crook — the old Army post around which all the Air Force base was formed.

Down below that last horizontal line is the Joint Intelligence Center. Every unified or specified command is now supposed to have a joint intelligence center per the 15 March 1991 memo by the Secretary of Defense, written by Duane Andrews. We also have a combat operations center, joint

coordination center, and communications-computer center. In the latter case, it is yet up in the air as to how much of that will be joint and how much of that will remain in the Air Force. A question?

Student: Are the numbers in the boxes staff levels?

Horton: The numbers you are seeing are officer, enlisted, and civilian totals. So, for example, the Joint Intelligence Center down here will have 145 officers, 715 enlisted, 81 civilians, or a total of 941 people in that organization, which compares to over

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1,100 in the 544th Intelligence Wing today. The difference being either to go off the books in a cut, or to go back to the Air Force, perhaps eventually to end up at Langley Air Force Base as part of the Air Combat Command staff.

Student: It seems to me that with the cost pressures and the importance of financial issues these days, the role of comptroller might change in this organization. Is anything like that approved?

Horton: The role of STRATCOM (Strategic Command) in the financial business would be similar to that played all along by PACOM and EUCOM, which of course has been evolving over time. The CINC puts out his IPL, his integrated priorities list, and goes to the Defense Resources Board when his particular priorities are to be discussed. His priorities should have been considered by the services who do the budgeting to support that setting, but then the CINC can reclama to the Secretary of Defense if his priorities have not been met by the services. And sometimes, those PPBS — Priority Programming and Budgeting System — decisions can be overturned and changed as a result of pressure brought on by a CINC. We will have a similar capability in USCINCSTRAT to affect a larger budget, but also there's our immediate budget of what's going on at Offutt Air Force Base per se as it affects the immediate computer support, communications support, and the like, for the staff.

In my business, for example, the General Defense Intelligence Program in Major Force Program III, funds most of what I provide to SAC today, and what my successor would provide to STRATCOM in the future. As I would understand it, the way that's going to work is that money will come directly from DIA, Lt. General Clapper,* who in his Director of Military Intelligence hat manages the General Defense Intelligence Program and provides the Major Force Program III money direct to the U&S commands for us to spend. The Air Force as the proponent for STRATCOM (since STRATCOM will be sitting on an Air Force base) will have a role to play in all that, too. And precisely how that's going to work is yet to be worked out. It differs a little bit from command to command.

Another logo just approved is the logo of the Strategic Joint Intelligence Center, which replicates the gold rope and all of that from the Strategic Command. But inside it has the globe, the four

swords of the four services from the JCS badge, and a peculiar-looking eye with wings, which is borrowed from the symbol of its predecessor, the 544th Intelligence Wing. It's the hawkeye, which has been part of a logo of the intelligence organization at Offutt Air Force Base since it moved there in the late 1940s, early 1950s time frame. Our motto, taken from the 4 December speech by the DCI (Director of Central Intelligence), and now approved by our CINC-to-be, General Butler, is "To see the world as it is," not as we would like it to be, as it is. The fact that we show the entire globe on there, not in a polar projection, which of course is the classic SAC view of the world, exemplifies the changing view of ourselves as a command.

If I could just divert a little bit, on the first of June we will see STRATCOM and Air Combat Command and Air Mobility Command all stand up. The way that's going to work, by the way, is that General Butler will pick up the Secretary of the Air Force and Chief of Staff in Washington the day before, or maybe very early that morning. They'll fly to Langley Air Force Base, lower the TAC flag, raise the Air Combat Command flag, fly to Scott at noon, lower the MAC flag, raise the Air Mobility Command flag, and then at 2:30 in the afternoon, fly to Offutt, lower the SAC flag, and raise the STRATCOM flag. Then, we rest. Actually, we'll have a big party to celebrate what will be fast and furious activity between now and then, and will continue right after that to complete the DCS moves that are involved in that.

But getting back to the division, at standup, STRATCOM just sort of carries on with the mission of the Strategic Air Command combined with that of the SSBN force. Like the Joint Strategic Target Planning Staff, it will be a planning staff whose mission will be to plan not only a single integrated operations plan, but unlike the JSTPS, also the forces for future single integrated operations plans or whatever succeeds the SIOP — a family of adaptively planned plans, perhaps, as we face proliferation around the world. More on that in a moment. We, in the Strategic Joint Intelligence Center, see ourselves as supporting this movement. As the means of mass destruction and their long-range means of delivery proliferate around the world, the mission of this command, perhaps, will become the deterrence of and perhaps the defense against the means of mass destruction and long-range delivery against ourselves, our friends, and our allies overseas. The mission of the supporting Strategic Joint Intelligence Center is to do the

*Lt. Gen. James R. Clapper, Jr., Director, J-2, DIA.

intelligence to support that mission over time, which is indeed a global view in support of or supported by the theater CINCs, who in turn will be focusing primarily upon the conventional contingencies that they would conduct within the particular theater under this umbrella that relates to the means of mass destruction and long-range delivery.

Oettinger: Is "defense against" just simply an innocuous statement or is it a shot in an attempt to capture SDI (Strategic Defense Initiative) and so on? Any comment?

Horton: Well, let me say that it has yet to be determined where GPALS (Global Protection Against Limited Strikes), the version of SDI that now has currency, shall reside if it becomes operational. There are those who say it should reside in Colorado Springs because after all, Colorado Springs has the North American Air Defense Command, it has Space Command, which will be an important part of the total architecture, and so on. In STRATCOM, we will have finally put together plans for the operations of strategic forces, and also plans for the development and acquisition and deployment of strategic forces. If defenses are now going to be a critical and integral part of the deterrence posture of the United States, and you're looking for the right mix and the right balance between offense and defense, you've also got to be able to orchestrate them in terms of their actual execution, should that become required. It's best to put that under one spokesperson, one CINC, to do that integration and let Space Command be a supporting command that provides a piece of that architecture, as is implied in the CJCS's statement "I've got four mission areas and I've got four supporting areas." I do not yet know how the debates will come out, but they will arise, I expect, in the next 18 months.

Oettinger: I didn't want that little statement just to go by without explanation. I appreciate your additional comments. Thank you.

Horton: That's an important statement. You were right to pick it up.

In any event, we see an evolving and changing mission of STRATCOM as it adapts to the world and mission that it faces; in support, we have the Strategic Joint Intelligence Center. You can read Mr. Gates' speech of the 4th of December (figure 2); we think that's what joint intelligence centers are really all about, and the total architecture in which they're embedded. We have to be careful

> *"Protection of turf and old thinking must give way to the demands for greater efficiency, more cooperation, less redundancy and duplication, and better use of fewer resources."*
>
> Robert Gates, Director
> of Central Intelligence,
> 4 December 1991

Figure 2

Guidance

about how we do this, to make sure that the fighting components of the unified commands have the intelligence support they need, and that we don't just have an upwardly directed intelligence structure, but that we also have a downwardly directed intelligence structure.

Student: I'm just curious. Is this integrated in — or are there plans for integrating in — with the civilian side of intelligence; those agencies?

Horton: Yes. If you're speaking of the Central Intelligence Agency, for example, there is a plan on the part of the CIA to go beyond what they have today, which is a CIA representative at each of the unified commands, to have a team of people tailored to the particular contingency that arises, to make sure that all the assets of the agency are drawn into supporting the CINC and his contingency. They have learned their lesson partly in Desert Shield and Desert Storm, but also of course in Just Cause, in which they were criticized, perhaps more severely than they deserved in some ways, but still they're working to fix it. One of Mr. Gates' many working groups addressed support to military operations. They have rendered a report to him and he is in the process of deciding what he wants to do, but I think that's going to be one of the things that will come out of that.

The National Security Agency (NSA) already has a cryptologic support group or equivalent in all the unified commands and they're looking at what that should be. And the Defense Intelligence Agency, while not exactly a civilian agency, but heavily civilian in terms of the personnel, is coming up with what I think they're now calling DISO, a Defense

Intelligence Support Organization, that will be put out at each of the unified and specified commands. It would be like the cryptologic support groups of today, and would likely have a human intelligence person, an imagery person, a scientific and technical intelligence person, and an intelligence production person. When you take the NSA, the CIA, and the DIA and put their groups together, these agencies form a cadre that can draw in and help not just the traveling augmentation team from CIA, but also augmentees coming out of DIA and NSA.

Indeed, one could even envision that if, according to the national strategy of the United States, we had a second contingency going on and you had maxed out the capability of the National Military Joint Intelligence Center (NMJIC) in the basement of the Pentagon with the first contingency, one of the command joint intelligence centers might serve as the alternate NMJIC. We have already volunteered to be one of those at Offutt. Other candidates, of course, will be the Atlantic Command, the Pacific Command, and the contingency JIC that we expect to be set up at MacDill, which will serve initially the Central Command, the Special Operations Command, and if it should come to MacDill, the Southern Command.

The three so-called "have-not" commands do not today have what could properly be called a joint intelligence center. Indeed, it's hard to say that there is any standard today among commands regarding joint intelligence centers. There is a quite robust one in the Pacific with very little left of the components, and there is a robust capability in the sub-unified command in Korea. And then in Europe you have a modestly robust one building at Molesworth U.K., which we call a JAC instead of a JIC — a Joint Analysis Center. Also in Europe, we still have a reasonably robust capability among the components, particularly in the Army, which is being looked at with long knives to perhaps carve off still more and put it in the JIC. And then you have Atlantic Command, which has a small JIC, as one of many parts of the Atlantic Intelligence Command, which actually add up to more than any other command in terms of the totality of directly supporting intelligence resources. You have the residual of the 544th at Offutt, in the new STRATJIC (Strategic Joint Intelligence Center), which would be the second largest JIC, and then you have what exists at MacDill, which can barely be called a JIC, but is actually tiny and needs to be built. We'll probably all have to pay a "tax" to help build it up — even the national JIC will likely have to pay.

Finally, let us not forget that there is a small JIC in the Transportation Command (TRANSCOM) trying to do transportation intelligence on airfields, on sea lines of communication, on rail nets and road nets, and so on. DIA has been doing this, but they've been shrinking the assets dedicated to it, and TRANSCOM is trying to build up the assets that are so dedicated. And then a small cell, in a very nice new building in Colorado Springs, is trying to do what USSPACECOM calls "space intelligence," on other people's satellite systems, and so on. So there's this network of JICs that are nonstandard, and the prediction is that they will be coming down to four major JICs eventually, corresponding to the four major missions in that seminal presentation by the Chairman: an Atlantic JIC, a Pacific JIC, a contingency JIC at MacDill, and a strategic JIC at Offutt, with perhaps outliers like the JAC or the one in Colorado Springs, which will connect to them but will not be as large and robust.

Oettinger: Before you go on, a couple of comments. One is that the reference to the Chairman's seminal guidance refers to a series of speeches and other things that are included among the materials we handed out last time. Look for the Colin Powell speeches. There are one or two of them that will contain this reference that General Horton has made. Second, if you look at that slide (figure 2), I cannot help but, in a historical light, call to your attention what looks like Jovian and dispassionate guidance from a maximum leader, could in fact be read as a call to arms from someone protecting his own turf. And the uncharitable way of reading that is that protecting your turf should not stand in the way of CIA bureaucratic supremacy. That might be an uncharitable way of looking at it, but historically not inaccurate, and so the question of what will really happen as a condition of this guidance strikes me as somewhat up in the air. You may wish to comment or not.

Horton: Well, let me comment and bring in some other factors. There is the DCI's vision. There is Senator Boren's vision. There is Congressman McCurdy's* vision. There may be Senator Nunn's vision, General Clapper's vision, and probably Duane Andrews'** vision, and so on, that are all now competing in terms of how to reorganize the intelligence community. Andrews' vision is captured in the 15 March memo to the Secretary of Defense. Senator Boren's vision is in the draft legislation that

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*Rep. Dave McCurdy (D-OK).
**Duane Andrews, Assistant Secretary of Defense, C³I.

is out. The McCurdy vision is also draft legislation and is similar to Boren's, but not identical. The DCI's is as yet unclear. He has all these working groups that are reporting to him and he's thinking about what they're reporting, and bits and pieces are beginning to become visible.

A critical day in the DCI's perspective is going to be the 20th of March, when he reports to the President how he would propose to take a 10 percent cut in the first fiscal year of the five-year defense program, and a 30 percent cut by the end of the five-year defense program. He'll have to maximize effectiveness and minimize the hurt of taking such a cut, which is what the Department of Defense is expecting to take over that same time period. So that will tell us a lot. Senator Boren has said that he respects Gates a lot, and was very responsible for his being confirmed, over the skepticism of some. I expect that there's going to be a lot of give-and-take between him and Gates. There will also have to be give-and-take between Boren and Sam Nunn, who have a certain degree of turf to be worked out here because Nunn sees that he owns the TIARA, the Tactical Intelligence and Related Activities under his aegis.

Oettinger: Nunn being the chairman of the Senate Armed Services Committee.

Horton: But Boren sees that while he has oversight over the National Foreign Intelligence Program, the NFIP, he needs to have some impact on the TIARA as well, to integrate them. So there is that tension. Over on the House side, that tension doesn't exist in the same way because it is generally recognized that the House Permanent Select Committee on Intelligence does have cognizance over both the NFIP and TIARA, so there is less of a potential for a turf battle. But there is a rivalry, though muted, between the HPSCI (House Permanent Select Committee on Intelligence) and the SSCI (Senate Select Committee on Intelligence), although I note that the two Oklahomans have managed to come to at least a reasonable meeting of the minds in terms of what they have proposed thus far.

How all this will come out is not clear, but I want to sketch some of the major points that are out on the table, beyond having JICs everywhere and having some of the things that are in the 15 March memo. What the DCI is now looking at is having a person responsible for signals intelligence, and we know who that is: that's the director of NSA. We will have a person responsible for human intelligence, and we think that's going to be the DO

(Director of Operations) of CIA. And then we'll have a person responsible for imagery intelligence — that's a tough one, but it probably will be within DOD — and it could be the director of DIA, or it could be somebody else. The DCI's made it clear that he does not want a new agency. So you may need to tag it to an old agency. There are those who would say, "Well, why not the National Photographic Interpretation Center (NPIC)?" and there are others who say, "No, DOD is the prime contributor and user of imagery intelligence, it should be within DOD. NPIC is not within DOD." And then there are those who say, "Well, within DOD, why don't we make it the Defense Mapping Agency? They don't have that much to do," which is not really true. We could give them that as an additional duty. Of course, if they take on that enormous additional duty, the creation of mapping, charting, and geodesy will suffer and they'll have to change the way they're organized, trained, and equipped. It'll take a great deal to accommodate this imagery business, and how responsible they could be to their various customers is not clear.

Then there is the director of DIA, who may extrapolate the instructions he got, particularly from the SSCI and the SASC (Senate Armed Services Committee) when he was confirmed. He has taken on the role de facto, but not yet de jure, of DMI — the Director of Military Intelligence — in parallel to and subordinate to that of the DCI, the Director of Central Intelligence, who now runs the community and the CIA. To help the DCI run the overall intelligence community, he has an intelligence community staff, and to help run the CIA, he's got a staff over in CIA, although not much of one, to bring order out of the chaos of the various potentates of the DI, the DO, the DS&T, and the DA of CIA (Directors of Intelligence, Operations, Science and Technology, and Administration). Now General Clapper is looking to that model and saying, "I am the Director of DIA and I run this agency, but as the chairman of the Military Intelligence Board (MIB), I run the equivalent of the National Foreign Intelligence Council, and as the program manager of the GDIP (General Defense Intelligence Program), oversee the equivalent (indeed a subset) of the NFIP (National Foreign Intelligence Program). The MIB is composed of the Director of DIA (Chair), the Deputy Director of DIA, the Director of NSA, the four chiefs of service intelligence, and the J-2 of DIA sit. The J-2 represents the unified and specified commands, and the Deputy Director of DIA represents DIA.

The DMI currently takes this view: "I am the DMI; now I propose to wear a second hat and that will be as the DII, the Director of Imagery Intelligence. And like the Director of NSA, who has responsibilities not only within DOD, of which he is a part, but also to the entire intelligence community, I will do the same. I will, in that capacity, primarily report not just to the Secretary of Defense and to the chairman of the JCS, although they will still be people I will pay attention to, obviously. I will also report to the DCI and to all of those customers and maybe to a committee, of which we already have an example in existence today, that is made up of DOD, CIA, and other representatives, all of whom have an interest in the use of imagery. And I will be certain that they will advise me on the acquisition of systems, and on the utilization of systems, and we will come up with priorities and requirements for both." ·

The DCI's blue ribbon panel on imagery is still contemplating this proposal and alternative proposals, and they're not sure yet what they're going to recommend to Mr. Gates. It isn't clear what he will decide to do, but it's his notion that there would be someone in charge of imagery, which is needed to ensure standards and interoperability, the words we used earlier. There isn't a whole lot of that, and we need to do more.

Oettinger: Do you have an additional comment, because it might look as if the response triggered by my earlier question simply has to do with bureaucratic infighting among providers. There is behind that also the interest of the consumer, if you will, in having the right thing at the right time and in the right place. Underlying this are, for example, struggles over the question of whether assets and resources are devoted to national strategic kinds of needs or the needs of a commander in the field. One of the more poignant statements of that is in that article by General Hopkins,* out of the *Naval Proceedings*, where you get the viewpoint of a fellow on the ground in a small unit saying, "Hey, all this organization is balanced in a way that favors the grander requirements and doesn't do much for me here in the field regarding what's over the next hill." Some of the later speakers will be able to address these questions as well.

Horton: The DCI's blue ribbon panel has to address the integration of the national and the

tactical requirements, and the national and the tactical systems to satisfy the various customers. You also have to address the question, "Now that we've stovepiped intelligence all the more, how are we going to integrate the all-service requirements on the front end, affecting acquisition and operations, and on the back end affecting production and distribution?" We need to make sure that that's covered, as well.

With regard to the counterproposals coming out of the Hill, the similar Boren and McCurdy proposals are saying that we need to take an even more radical view. According to their proposals, we have to create a Director of National Intelligence — a DNI — and this DNI is going to have a staff reporting to him drawn from the ICS and CIA. A truncated CIA will remain that contains its human intelligence and special operations activities. And then we will take the analytical corps of CIA and combine it with the analytical corps of DIA and of the Intelligence and Research directorate of the State Department. This would be outside of the Department of Defense; hence, the commentary that the loser in this is the Department of Defense. The DIAC (Defense Intelligence Analysis Center), which is out of DOD under this scheme, is at Bolling Air Force Base. That's the place that I used to run for the Director of the DIA, the analytical corps of the DIA. The DIAC would form the core of this one-stop shopping for analysis in Washington. Then we'll have the director of NSA, which would be within what remains the DIA, and there will be the director of imagery analysis, which would also be within the DOD, and there would also be a staff director of DIA within DOD. And that's the beginning of the dialogue to integrate what Boren and McCurdy are proposing on the one hand, with what the DCI seems to be considering on the other. One is more revolutionary, one is more evolutionary, but both are significant changes in the way things are being done today, particularly in the area of imagery. And that's a long diversion. Are there any questions that you'd like to ask about that area before I get back to the example?

McLaughlin: Before we get too far ahead, I want to ask you about the subject of JICs in general. One of our speakers last year talked about the fact that CENTCOM had minuscule intelligence capabilities at the time that Iraq invaded Kuwait. I'm told that there was not a single Arabic speaker, for example, in the CENTCOM intelligence staff in August; the one speaker had been assigned someplace else. This was all set, of course, by throwing in people from

*John I. Hopkins, Major General, U.S. Marine Corps, "This Was No Drill," *Proceedings, United States Naval Institute*, 117:11:1065, Annapolis, MD: U.S. Naval Institute, November 1991, pp. 58–62.

each of the agencies and combining them in sort of an initially ad hoc basis and labeling it a JIC. It seems now that everything is going to be a JIC. Is this a new term of art? Is it an old term of art I missed earlier on?

Horton: It's a term of art that is becoming more universally used, let's put it that way, and it has attained currency. It's not all that new, but it's got special currency at the moment. We always had, for example, a National Military Intelligence Center. There always were phases of building it up in a crisis, so that you would have some augmentation that would initially be there only certain hours, or they'd eventually be there all the time, or you would go still further and activate the 24-hour operation over at the Defense Intelligence Analysis Center to back them up. Ultimately, you would create this big JIC in the Pentagon basement in which you would have Army, Navy, Air Force, and Marine Corps service people and people from around the world come in. And they got to that latter point, which was the maximum program, during Desert Shield and Desert Storm. Now we're going to institutionalize that. We're renaming the NMIC the National Military JIC, and we're going to have these phases like we always had, but we're going to do it better.

They worry about what happens if we have a second crisis going on. The answer may be that you may have to fall back to a theater JIC or to the one at Offutt, or whatever, to back you up if that happens. They'll have to look upward, as well as what they always would be doing in the theater JICs, the downward look. So the term is current at the moment. But if I may, I'd like to return to the JIC in question.

I already mentioned the memo of 15 March (figure 3). That's kind of a summary of what the 15 March memo said about JICs. Notice that it's the combined analysis centers of U&S combatant commands and components that form the JICs. That worries the components, because they're wondering if they can count on the intelligence support they need in time of war. They have a point. We had a JAIC (Joint Air Intelligence Center) under General Horner* in Desert Storm, and it was doing a different thing from the JIC under General Schwarzkopf. It was applying intelligence to the creation of the air tasking order (ATO) against which all those aircraft flew. Then, it applied an immediate bomb damage assessment to determine if they had to refly the

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*Gen. Paul Horner, USAF, Commander, CENTAF during Desert Storm.

SECDEF Memo: "Strengthening Defense Intelligence" (15 March 1991)

- Enhance "jointness" through consolidation of intelligence into Joint Intelligence Centers (JICs)

- Increase efficiency by consolidating and streamlining to eliminate unnecessary duplication

- Combine analysis centers of U&S combatant commands and their components into JICs under the control of designated U&S CINCs

- CINCs and components will retain intelligence staffs to support planning for and conduct of current military operations and to provide focused requirements statements.

Figure 3
Guidance, cont.

mission and so on and so forth — a more specific application than those tasked to the JIC.

Indeed, as we try to sort out the division of labor, we talk about production and application. The production is done by JICs and application is done by the components, but then you have differences of opinion as to how you define production and how you define application. U&S commands tend to define production as all-encompassing, and components tend to define application as all-encompassing. There is indeed a great gray area.

My view of it is that as you get into this expeditionary force mode, JICs are expert on the theaters in question. They're the ones who have the initial databases on targets, and on threats through which you have to pass to get to the targets. Components are experts on platforms and weapons, and concepts of operation for those platforms and weapons. You've got to marry the two when you go into a theater. You've got to have a cell out of a JIC bring its database to marry with a tactical intelligence squadron, let's say from the Air Force's perspective, that supports a tactical air control center and is the expert on the platforms and how you utilize them. And you feed the database into their ATO machine

and staff, and then you start cranking out air tasking orders. The JIC keeps feeding in basic intelligence, but at the same time, you're also getting back unit mission reports and gun camera film, and so on. You're fusing all that to the particular application of "What did I hit, what did I miss, where do I need to strike again this time, what new do I need to strike that's coming from the unified commander's priority list?"

For that to work, if you're taking a piece of a JIC and something that's in a component possibly coming out of the CONUS (continental United States) and marrying it in the field in a conflict that may start with five days' notice, you have to practice. There has to be a concept of operations against which you're going to practice, plans in which these concepts apply, and then exercises that practice over and over again. This implies a very robust exercise program around the world between components and U&S commands, and whether we're going to be able to afford that is the question because that's an expensive proposition. But the other question is, can we afford not to do that?

Oettinger: May I underscore another element of that for a moment? Going back to your earlier description of this matrix organization, there is a substantial amount of experience in the civilian sector, in the corporate world, on matrix organizations and, of course, there is substantial literature on it. One of the critical elements in terms of the success or failure of it is the poor guy in the cell, who's trying to do a job both for his home base and for the operational thing that he or she is reporting to. Then the question of who evaluates the performance and who deals with promotions and so on becomes a very critical element. This may be, for some of you who are interested in organizational issues, an area to explore, because if and when the intelligence community moves more toward that matrix concept, making it work depends on a lot of critical issues for which there are precedents and a long history of attempts in the civilian sector.

Horton: Not always successful.

Oettinger: Not always successful, exactly.

Student: General, I'm interested in what you're talking about — components — because my feeling is that the mission of components is very clouded, maybe by what we call "type commanders" in the Navy, who are suppliers of assets — they're not warfighters, correct? And really, if you look at the two-tier concept that ARCCENT has now in the Pacific, that definitely is the case, and in fact I see

the Navy moving in that direction. I'm wondering whether you're saying the Air Force is not going in that direction, because, quite frankly, that's the way we are. And if that is the concept, what we're really saying is the CINCs, themselves, are the warfighters, with a foreign-deployed commander who is not a component, but rather a joint commander in and of himself.

Horton: That's a very good point, and the Air Force is looking at the Horner approach as the model. But that's not necessarily the model in which you have Schwarzkopf working the big picture, and then Horner's focusing on the air tasking order with his own special kind of intelligence support. That's the model the Air Force is thinking about. In another context: we were talking about the Korean model in which Lt. Gen. Ron Fogelman,* as the deputy commander of U.S. Forces Korea, as well as the Joint Forces Air Component commander, is in effect integrating everything beyond the fire support coordination line in the Integrated Tasking Order (the ITO instead of the ATO), including the air drops and the special forces and whatnot. In a sense, he's doing that for the CINC at the CINC level, although at a greater detail level.

At the other end of the spectrum, we at Offutt have always done and will continue to do a kind of two-tier approach, instead of a three-tier approach, in that we do the big picture that the unified or joint task force commander does, but we also do the equivalent of an air tasking order in that same staff, virtually simultaneously. Our air tasking order is known as the SIOP, the Single Integrated Operations Plan. It's a one-sortie air tasking order and when execution comes, it goes straight from the National Command Authorities (NCA) to the crew. We just get info copies, in effect, of that order in the command and control system for nuclear forces. It's more complicated than that, I realize, and we can go into that. Having chaired the JCS study group on nuclear command and control some years back, it took two years to discuss balancing assuring an authorized execution against assuring against an unauthorized execution, to make sure that the checks and balances work but do not freeze the system so you can't operate when it's time to go. There are steps between the NCA and the crew in the theater for nuclear deployment, fire breaks, recoding, and decodings. But essentially, we're two-tier in the strategic business, just like you are in the Pacific.

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*Lt. Gen. Ron Fogelman, USAF.

Student: Let me just take it one step further. It seems that you are really going to base this big military strategy upon a capability, rather than the threat, and we really need to design our structure and our forces so that we provide capabilities to go against unknown threats. And how do you structure then the JICs to be able to go against an unknown threat? It seems like you are building so many layers in there that you are really not focusing on the capabilities to be able to react in flexible ways, rather than going against the threat we had in the past.

Horton: Another point well taken, and while certain threats are more likely and some are less likely, there are also certainly more important threats and less important ones when you look at the rim of instability from North Korea to Libya, and everything in between, you wonder where the next contingence is going to rise. I mean, who would have guessed the Falklands, and who would have guessed Grenada and places like that, for which you might not have had any data at all? You had to have in place, in addition to a fairly robust capability for those threats that are more likely/more important, the ability to quickly build something out of nothing for the surprises. It has to work in short order against these pop-up situations that you've no way of anticipating. Exactly how you do that I'm not yet sure, but we know that is a problem and we are consciously addressing it.

For example, we show (I don't have the slides with me) a couple of slides at Offutt, one of which shows a spectrum of possibilities with regard to East-West conflict, or actually East-West relations, and another slide with regard to North-South relations, which is a vast oversimplification, of course. But the point mainly is to say, "I have this range of uncertainty; here is where I think I am in this range, and then I have this range of uncertainty about where I am going in the future, so I have to hedge against the range." And then the question is, "Well, how do I know how to hedge since this range is potentially infinite?" We have to do it based on the expected value of probability times bad outcome, if you will, which is easy to say, not so easy to do. We then sort of draw vertical and horizontal dimensions in which the horizontal dimension is time, and the vertical dimension is expected value probability times bad outcome, which is how then I should be prioritizing what I am preparing myself for.

General Welch* commented as the Chief of Staff of the Air Force, when we were talking about doing the major aircraft review nearly two years ago, and said, and I paraphrase, "Let's not talk about scenarios, because any scenario you posit, someone is going to shoot down as unlikely." But what you've got to get people to agree to is that there is a high likelihood that there will be a scenario. You just don't know which one, since we can't agree on a scenario, but perhaps we can agree on the nature of the battlefield if a scenario eventuates, given high tech conventional capability, the possibility of the means of mass destruction and their long-range means of delivery, and sophisticated defenses, we can project, roughly, what the battlefield is going to look like at each level of conflict intensity. It's going to become more and more of a challenge, maybe not sustainable over a period of time but very intense, at least for a short period of time.

Using that concept over time then, let's look at generic low-, medium-, and high-intensity conflict and nuclear conflict. Let's take a look at probability times outcome as we project it over time, and I'm not sure exactly whether it's 10 and 20, or 20 and 40 years over my span, but in the near- to mid-term, I'm looking at the dramatic drop of the expected value of nuclear conflict and of high intensity conflict. The modest rise may be not so modest at mid-intensity conflict. There may be a kind of level or slight decline in low-intensity conflict, and then I have a reversal of all of that in the out years. Why do I say all that? With regard to the nuclear, it drops initially because we have fewer warheads, more precision and lower yield, and the temptation to use them seems to be dropping away to zero in the former Soviet Union. But in the out years, because of nuclear proliferation, we will have nuclear weapons in the hands of those who may not be quite so prudent as the former Soviet Union. Further, as we see the potential for the FSU economies decline, will there be riots in the streets in coming years, and what does that lead to after that?

With regard to high-intensity conflict, it drops most precipitously of all in the near- to mid-term because the Warsaw Pact is no more and the forces are being broken up among the republics. But in time the pretenders to regional hegemony around the world may eventually be pretenders to a more global, or at least a more theater-wide capability to project power and influence with military means in

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their region, and so they may not be perpetrators of merely mid-intensity conflict that you might describe today. Desert Shield and Desert Storm are the high end and Just Cause is the low end of such a mid-intensity conflict. Beyond mid-intensity, perhaps there could be a Middle East conflict that extends from Libya to Iran in 50 years; it's not inconceivable. So we have to worry about the potential for mid-intensity conflict as it's eventually supplemented by the potential for high-intensity conflict in theaters around the world.

The probability-times-bad-outcome product for low-intensity conflict drops gradually, not so much because it's less likely, but because we care less about the outcome in many instances, at least initially. It's more likely to be considered a local phenomenon and no longer the concern of the U.S., but as the means of greater and greater mass destruction fall into the hands of narcotics traffickers or whomever, expected value has the potential to become of great concern again. Low-intensity actors can damage us and our friends and allies today, and in the not so-distant future, you have to think of chemical and biological weapons and eventually nuclear weapons. Maybe it's not all that far away with nuclear weapons if they got their hands on an atomic demolition, let's say, from the former Soviet Union.

So you see, priority drivers for hedging are shifting, and you say, "OK, in this near- to mid-term, these are the kinds of battlefields that I have to be prepared to deal with in my active forces. Do I bring in my reserve forces? My supporting C^3I structure? Then, when I look at this reversal in the out years, do I have to have the ability in my reconstitution base and in my industrial base to bring on, just in time (perhaps because you can't afford to get it early), the capability to deal with these requirements. In the meantime, we're going to try to postpone that shift in relevance concerns as long as possible, because the long-term projection is not a very pretty picture. We can hope to put it off and/or mitigate it through arms control and whatnot. But in time, because we're in the business of providing insurance, we're in the business of making sure that if it does eventuate, that we're prepared to deal with it, we need to hedge. Here's where GPALS and so on comes along. You need to develop an estimate as to how soon you need it. In my mind it's not a question of *whether* you'll need it, but *when* you'll need it. At some point in time, I think you'll need it, and maybe you've got to be very astute as to picking that point in the initial

operational capability, to have it just in time and maximize all the R&D that's been done up to that time, and to save money in the meantime for other purposes.

So that's the approach, but in implementation it's not that easy to do. We know there are going to be a lot of unknown unknowns, but that's the problem. They are, in fact, "unknown unknowns." There are some implications for intelligence in that I need to get away from the direction I've been going for the last 10 or 20 years, driven by the old world that we're coming out of, where I know my unknowns. I know where to look. I know where to listen in the spectrum. I know what my target is, and I know what I'm looking for in my target, and so I'm going to have this very sophisticated soda straw that's going to look and listen for particular things.

Now, I need a more generic approach — a vacuum cleaner approach — that scoops up information about proliferation around the world, let's say. It isn't looking at particular points on the globe, but looks at the whole globe, and then maybe uses some kind of computer-aided filtration — automatic change detection, automatic signature recognition, and the like — to assist the analyst. Otherwise, this analyst is going to be overwhelmed and is not going to be able to utilize all the material that is available to him or her to identify and characterize emerging threats. We need to begin to get a handle on the pop-up of the unknown unknown, but our collectors have tended to migrate away from the finder and general characterizer of the unknown unknown, to the finder of detailed characterizer of the known unknown, and we need a balance. I have hammered this time and again with those who are in a position to do something about it, and they're beginning to do something.

Oettinger: Is it part of the answer or is it part of the problem — the greater or different reliance on private sector resources since, you know, at any level the task is impossible for any proposed specialized group? Does it help or hinder to think in terms of making greater use of normal commercial presence, or is this a red herring?

Horton: No, it helps in the sense that if we don't do commercial off-the-shelf, we're not going to be able to afford to do much. It turns out that the commercial sector has done much that we should take advantage of, some of which we haven't fully recognized. We need to make a more vigorous effort to find out what's out there and make use of it, and then only tweak where we have to tweak to make it

usable for our peculiar applications, rather than making some sort of arbitrary and capricious government spec, or something that is just slightly off design-wise, and extremely expensive. There are some people from Rome Air Development Center sitting there in the back. What would you say about that?

Student: I think that's a positive idea, but I think there are also some problems with it. Some of the systems that are being developed are unique, as in the way the military uses them, and you have to take that into consideration.

Horton: There needs to be a balance, but I think that we have not been paying enough attention to what's out there commercially. There is more and more out there, including remote sensing and that kind of thing.

Why don't I return to my slides? But I've enjoyed the diversion. It was useful for me, and hopefully for you.

This continuation on "guidance" (figure 4) is important because it specifies there in that last bullet the 10 tasks that encompass what JICs are supposed to do. This is the chairman's Approved elaboration on the SECDEF, and we'll get to those in a moment. And then, still in the draft stage, is the JCS Pub 2 (figure 5) on the doctrine for intelligence and joint operations, which also has something. These rules

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Joint Pub (Test) 2.0: "Doctrine for Intelligence Support to Joint Operations" (30 June 1991)

- The JICs bring together expertise from all relevant intelligence disciplines and warfare specialties and are the key to operational intelligence that is timely, relevant, and complete.

- The J–2, with the JIC staff, has primary responsibility for providing or producing the intelligence required to support the joint force commander, his staff, components, task forces and elements.

Figure 5

Guidance, cont.

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are about what JICs do, and one of the rules that is not on there, that Mr. R. B. Walker of DIA here reminded me of yesterday, is rule one that says, "In the final analysis, the unified-specified commander can organize his command any way he wants to in order to achieve his mission." These rules were thus merely suggestions to the CINC, but only he has the responsibility, and therefore he has the authority. We hold him responsible, so we've got to give him the authority to do it his way; therefore, JICs will never be totally standard because he'll do it the way he or she wants.

What is a JIC (figure 6)? You can draw a common denominator from all of these various guidances. Some say, "Well, there is nothing in common among them," but I say there is. It sort of comes down to those three major points and the subpoints. And there's a lot of subtext to all that, but that just summarizes it.

What does the STRATJIC do (figure 7)? What are its functions? I won't take the time to show you what the Chairman's document says, partly because it's Secret. What I will show you is the Unclassified level. What we're planning to do is take off from what the Chairman told us to do — intelligence production in support of strategic nuclear targeting planning. These are very carefully chosen words. Notice I didn't say, "SIOP targeting," because there's also non-SIOP targeting. Notice I didn't just

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JCS: "National Military Strategy Document (NMSD) 1994–1999" (2 December 1991)

- CINC J–2s should identify and acquire necessary facilities, equipment, communications, techniques, procedures, training and personnel to support the commander in force planning and employment

- JICs will become the principal components for ensuring effective intelligence support to CINC and theater forces

- Specifies 10 JIC tasks that encompass entire spectrum of intelligence from planning to augmenting deployed joint task forces

Figure 4

Guidance, cont.

say, "operations planning," because there are other kinds of planning that we support as well — force planning and even acquisition planning. That's unique, perhaps, among the services and the U&S commands and JCS. We are going to be in a position to continue to specify the characteristics we'd like to see in particular weapons systems, as well as the force structure of those weapons systems. Those particular characteristics are important to deterrence and to the war plans in ways that, perhaps, particular characteristics of tanks or ships are not quite so critically important, because we're talking about circular error probable range, payload, yield, and so on.

"Help establish and orchestrate strategic reconnaissance requirements" — Combat and command, or strategic reconnaissance, will reside with STRATCOM. It appears the Air Combat Command will not, as they had desired, be a specified command, at least not now. So they will not have combatant command responsibilities. We will probably provide operational command, the next level down, to the 2nd Air Force which is a part of Air Combat Command. In that sense, the commander of 2nd Air Force, at Beale Air Force Base, the reconnaissance surveillance middle management guy, will have two hats — one to organize, train and equip, reporting to General Low at Langley; and to operate the fleet in peace and war, reporting to

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■ Intelligence production in support of strategic nuclear targeting and planning

■ Help establish and orchestrate strategic reconnaissance requirements

■ Prepare and/or cause to be prepared estimates of present and projected capabilities and intentions for the acquisition, military utilization, and long-range delivery of the means of mass destruction among potential adversaries and the effects of our actions on the above

■ Analyze all-source intelligence, validate changes in present or potential threats, maintain and update relevant, accurate databases, and generate relevant, timely multimedia products relating to the above

■ Support and/or augment the national JIC, other JICs, and the intelligence assets of force providers/components at their MOBs or deployed locations as necessary

Figure 7

Functions of STRATJIC

General Butler at Offutt, who will get direct tasking from the Joint Reconnaissance Center in the Pentagon. That's now a J-2/J-3 joint center under the JCS, directing the Strategic Reconnaissance Center, which is being renamed, I understand, to Global Operations Center at 2nd Air Force Headquarters at Beale AFB. It's just now moving from Offutt to Beale, right to the forces, the U-2 TR-1 and the RC-135s.

Talking then about the kind of analysis that needs to be done, we don't just talk about the former Soviet Union, we're talking about those who have or those who are getting the means of mass destruction or the long-range means of delivery. We are already gathering, with the blessing of DIA, more responsibilities outside the former Soviet Union in that regard.

We get on down to validating what comes in to those forces that are chopped to us when they go on nuclear alert (figure 8). Those pieces of information are coming from the outside as products that would be useful for the alert forces. The indications and warning (I&W) relate to all of that, including warning of the attainment of capabilities, as well as

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DOD concept for present and future intelligence support to the warfighter

■ Vests responsibility for production and analysis in consolidated center at the U&S commands under J–2 auspices

JICs have been created primarily from consolidating service component intelligence organizations

■ Added to any preexisting joint intelligence core

JICs have responsibilities to both U&S commands and force providers/component commands

■ JICs also have distributed production responsibilities to a broader community

Figure 6

What is a JIC?

- ■ Perform strategic I&W on the former USSR and PRC capabilities and intentions to wage strategic war against the CONUS. Be prepared to take on other countries as they attain capabilities/intentions to threaten the CONUS.

- ■ Develop and maintain intelligence databases and generate and distribute intelligence products on the former USSR and PRC ICBMs, LRA, strategic defenses and other functions as assigned. Be prepared to take on other countries as proliferation proceeds and to adapt to new applications such as arms control monitoring.

- ■ Perform all other functions as assigned.

Figure 8
Functions of STRATJIC, cont.

the potential capability and the intention to use those capabilities — long range, means of delivery, means of mass destruction. They're primarily nuclear but not necessarily limited to that. They could be chemical or biological. Thus, we would be working, for example, with AFMIC, the Armed Forces Medical Intelligence Center, the leading expert in the U.S. Department of Defense on biological warfare, which, by the way, is a tough one to do intelligence wise — biological warfare is very cheap to do, very easy to do, very easy to hide, and very lethal.

Developing the databases — here we're talking about distributed production, because in addition to supporting your CINC and hopefully also supporting your JFACC or your JTF commander or whatever, you must also support that larger community out there. Once you've decided what you would do to support those for whom you work, you might as well support anybody else out there who needs that same data, rather than somebody else duplicating it. And in that regard, performing other functions relates to new applications, such as arms control monitoring. Doug MacEachin, who is the chief of the DCI's Arms Controls Intelligence staff, and Bill Grundman, who is the equivalent in DIA, have told us — but it's not yet authoritatively in writing — that we are going to have responsibilities in the

monitoring of START. Perhaps other JICs will have responsibilities in monitoring INF, CFE, and whatnot, because we already track limited items, or TLI as they are known, for targeting and indications and warning, with a few tweaks to our databases, perhaps we could also monitor them for arms control. Why not do that rather than reinvent the entire database someplace else if we're going to get the most for the taxpayer's dollar? We have to be prepared for that.

This is how we're structured (figure 9): just a typical wiring diagram. I mentioned the O-8 and the O-6 at the top — plus an Air Force colonel, chief of plans and policy, an Air Force colonel, chief of intelligence and production, who is dual-hatted as the chief of the Strategic Joint Intelligence Center. A Navy captain who is the chief of the collection and management division; eventually, at least, that will be the case. The Navy may not be able to fill that one immediately, so we have an Air Force colonel who has been doing that.

For J-24, Special Security and Counterintelligence, we've added counterintelligence for the reorganization of CI within the DOD. That will be a civilian.

Intelligence Systems is an Air Force colonel, since most of the systems that we're directly involved with are Air Force systems, but there's Navy representation in all that, to the tune of about 37 or 38 percent above the line. You notice that there are two numbers at the top: 64 and 102: 64 are on the books above the line; 102 adds the J-22, which is on the books below the line, and the J-25, which is also on the books below the line — kind of an anomaly. They were put below the line, i.e., within the supporting JIC, because the staff above the line was too big. We put it below the line, even though it is legitimately a staff, not a production, function.

The Air Mobility Command (figure 10) has a director of intelligence, a colonel with the usual functions, to whom we will be providing some of the people doing those functions at Scott Air Force Base. The Air Combat Command's intelligence organization is organized somewhat differently than is Air Mobility Command's. We hope the chief of intelligence at Air Combat Command (figure 11) will be a flag officer — it has been so recommended — with a colonel deputy. One of them will be from SAC, the other from TAC. We will have a mix of SAC and TAC people in that organization.

Unlike Air Mobility Command, there will be a below-the-line organization in Air Combat Command, working the applications (figure 12). At
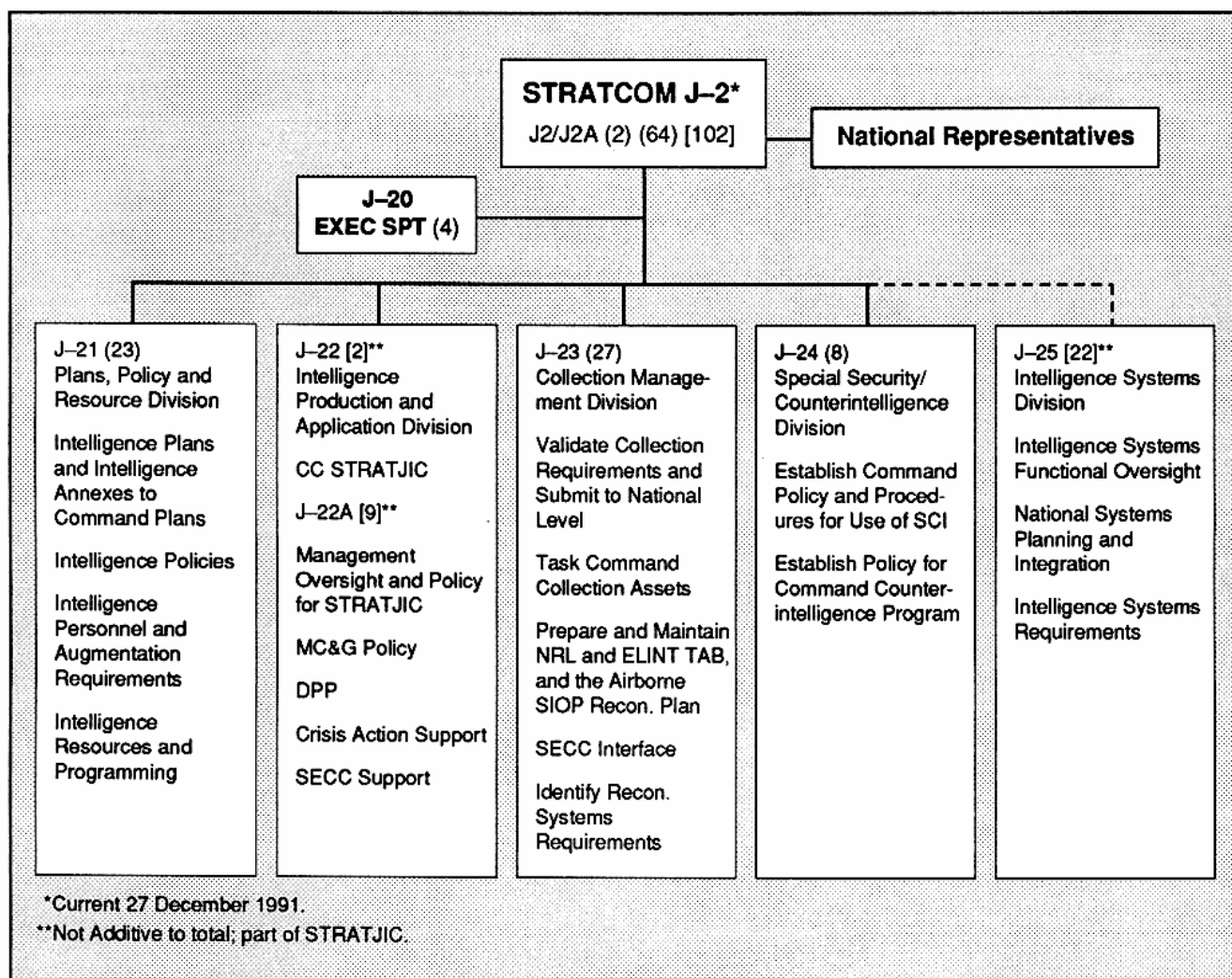
Figure 9
STRATCOM J–2

Langley, this is the 480th, which as indicated, has nearly 400 people; plus at Offutt, at least initially, as many as 270 people were carved off from what would have gone into the Joint Intelligence Center but will now belong to the Air Combat Command, and also provide some assistance to the Air Mobility Command. In time, some of them may migrate to Langley or to the tactical intelligence squadrons at Shaw and Bergstrom to increase the tactical intelligence squadrons, which were inadequate, during Desert Shield and Desert Storm. Ninety-five of the 270 are the ELINT (electronic intelligence) lab, which may become a part of the Air Force Intelligence Command. That is yet to be determined.

Let's take a look at what's then left in the Strategic Joint Intelligence Center (figure 13). Below the commander and deputy commander, there is a defensive analysis director in the upper right, an offensive analysis director in the lower right, an intelligence production director in the lower left, and this Air Combat Command-owned element, the 544th Intelligence Squadron. Through a memorandum of understanding, they will provide mutual support to us and we to them at Offutt.

I'll peel back that layer now to say that the Defensive Analysis Directorate (figure 14) is the smallest of the group, now that the ELINT lab is no longer a part of it. Notice the things indicated.
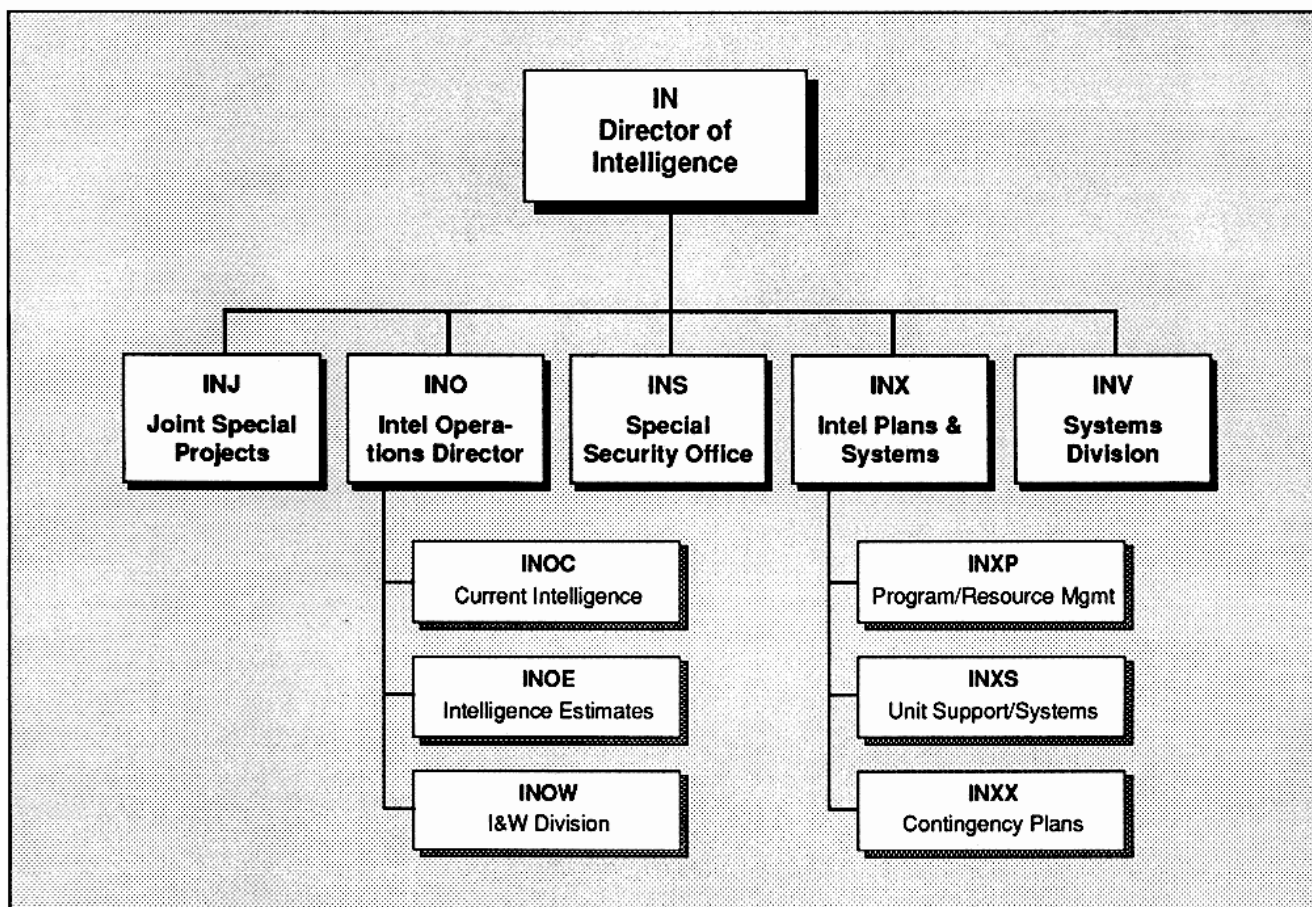
Figure 10
HQ AMC/Intelligence Organization

Distributed production is what we do for the entire intelligence community on the strategic defenses of the former Soviet Union and others who will have the means of mass destruction. Note that we've got some interesting software and hardware that does critical node analysis. We have now exported it to 27 customers around the world who are also using it. We've also got some real expertise in mission planning and penetration analysis and in I&W.

At the Offensive Center (figure 15), there's one thing that's different: the continual pursuit of critical mobile targets. We have expertise in that developed for chasing SS-24s and SS-25s. We applied that expertise during Desert Shield and Desert Storm. In that conflict, DIA divided Iraq into two parts for purposes of chasing SCUDs. They took the east and we took the west. We chased SCUDs in western Iraq, doing area limitation and providing cues to the theater as to what, where to, and when to strike, and

that worked well. We had an end-to-end electronic transmission from collection to sending annotated mensurated imagery into the field. Minutes after an image was taken off national systems, we had it in the hands of crews. It can work that way if you have the communications pipes to make it work. While pursuing this approach, we had an instance, when a young airman and a young lieutenant came in to see me late one night while I was doing paperwork. They worked in a 24-hour SCUD-chasing cell. They said, "We just sent a flash message to the Tactical Air Control Center." I said, "What was the occasion?" And they said, "Well, we realized that once you look at the imagery and detect a SCUD and though all the other indicators verify it's a real SCUD, it takes minutes to get that image into the hands of the Tactical Air Control Center to tell the Airborne Command and Control Center to tell the F-15 on cap to go get it. By that time, the enemy may
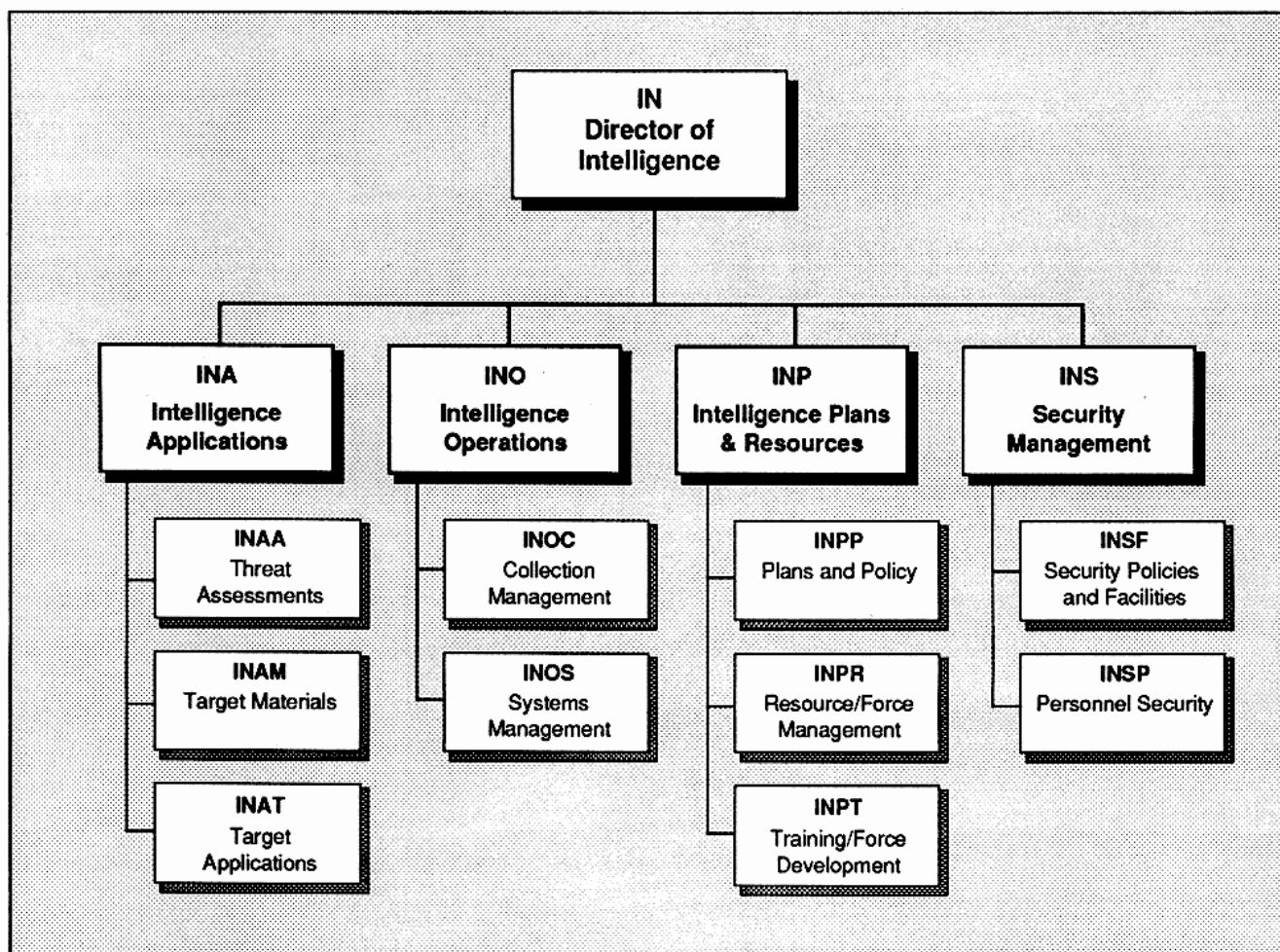
Figure 11
HQ ACC/IN Organization

have fired a SCUD and scooted back into his hiding place, so we preempted that and sent the message right in with the lat/long of where the SCUD was, and that saved minutes." "And maybe those were the crucial minutes." I said, "You're heroes. You did exactly the right thing. You've invented a new process. Now let's refine it. Get with the Tactical Air Control Center in Riyadh and find out exactly how you should address this to minimize the time, and how you should characterize the essential elements of information, i.e., what an F-15 pilot needs to know to be able to identify this thing visually, in addition to the lat/long." And they did that and they kept sending messages throughout the war, and they were pretending to stamp their IDEX (Imagery Digital Exploitation) machines with dead SCUDs. We don't know if they actually accounted for any kills, but they liked to think so.

I've mentioned treaty monitoring. We do trajectory construction both red-blue and blue-red at Offutt. To whomever gets GPALS we can offer that service of common concern. We also do non-SIOP weaponeering and targeteering in the JIC. The SIOP weaponeering and targeteering is currently being done in the J-5, keeping the JSTPS cell whole, but in time we expect that to migrate to the J-2 as well, and the non-SIOP adaptive approach may become the rule, rather than the exception.

The Production Directorate (figure 16) is more than just housekeeping. It's the successor to the largest imagery processing lab in the Air Force and does the other things listed that are very important, in terms of real TQM. We found, for example, that we were deficient in constructing certain aspects of our databases and were called to task for that when

ACC/Intelligence Group

Langley AFB
Total: 358

CC

CCA
CCF

DC
Security
CCI
TQM

Air Intelligence
Squadron
CC

Ops Officer
Unit Assistance Center

Intelligence
Support
Squadron
CC

Superintendent ——— OPS Officer

Superintendent ——— Ops Officer

| Mission Support Materials Flight | Operational Intelligence Flight | Applications Flight | Production Flight | Systems Flight | Plans & Resources Flight |

Air/Intelligence Squadron

Offutt AFB
Total: 270

CC

CCQ ——— Ops Officer ——— Unit Assistance Center

CCI

Mission Support Materials Flight

Applications Flight

Figure 12
ACC/Intelligence Group and Air/Intelligence Squadron

our QCers (quality controllers), the DIA, who weren't doing their job either, finally did their job. They discovered that our air order of battle in one area was not good; we had been relying on their QCing and they weren't doing it, so we didn't know it wasn't good. So we now realized we've got to do it right the first time every time. We've got a new training program to make sure that analysts coming right out of intel school know not only the mechanics, but also the context and the whys, as well as what to do. That's helping.

Then there's that Air Combat Command 544th squadron organization (figure 17). If you look at it more closely, you can see that's more unit application-oriented, just as it's supposed to be — conventional oriented, target materials, unit support.

Figure 13

Strategic Joint Intelligence Center

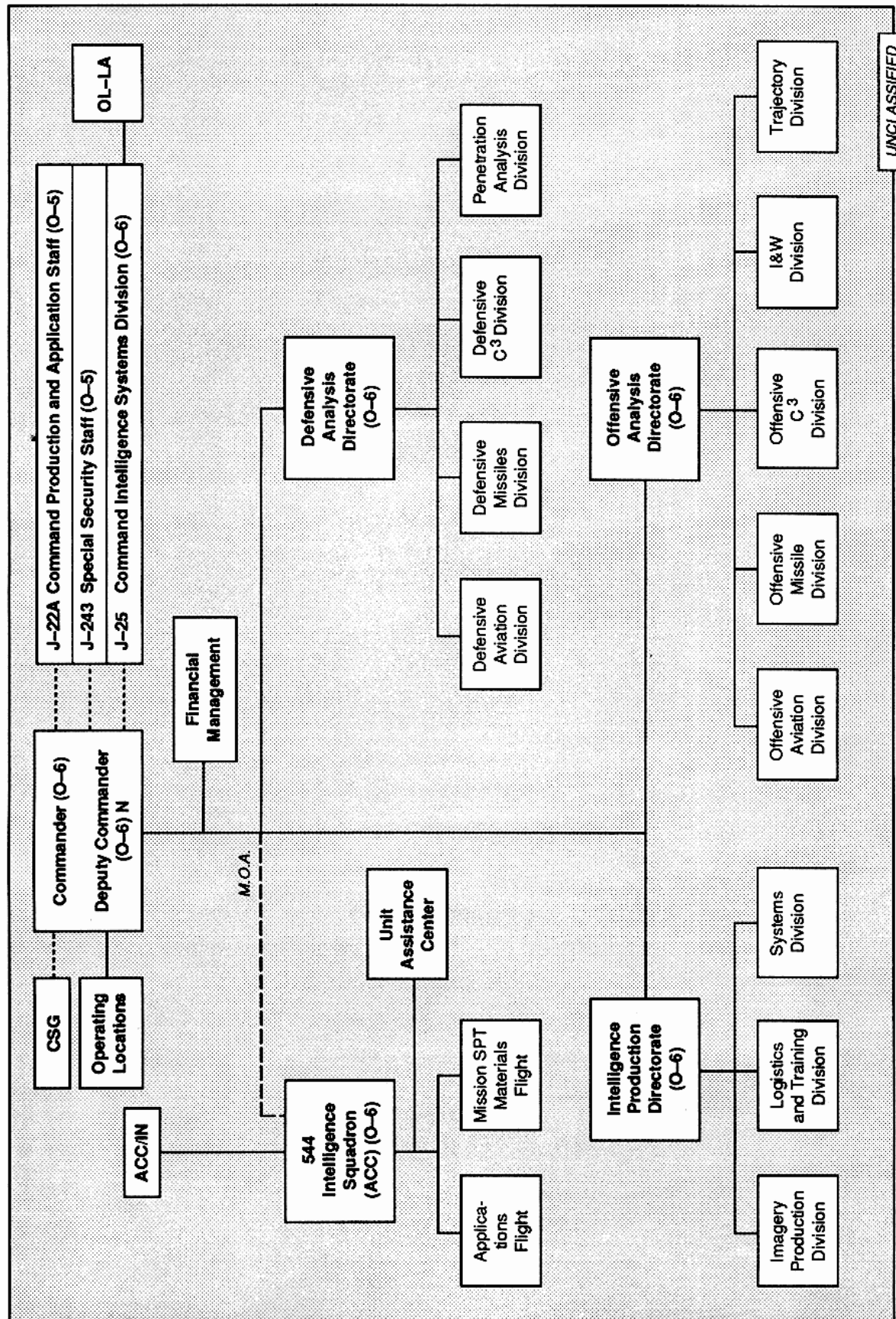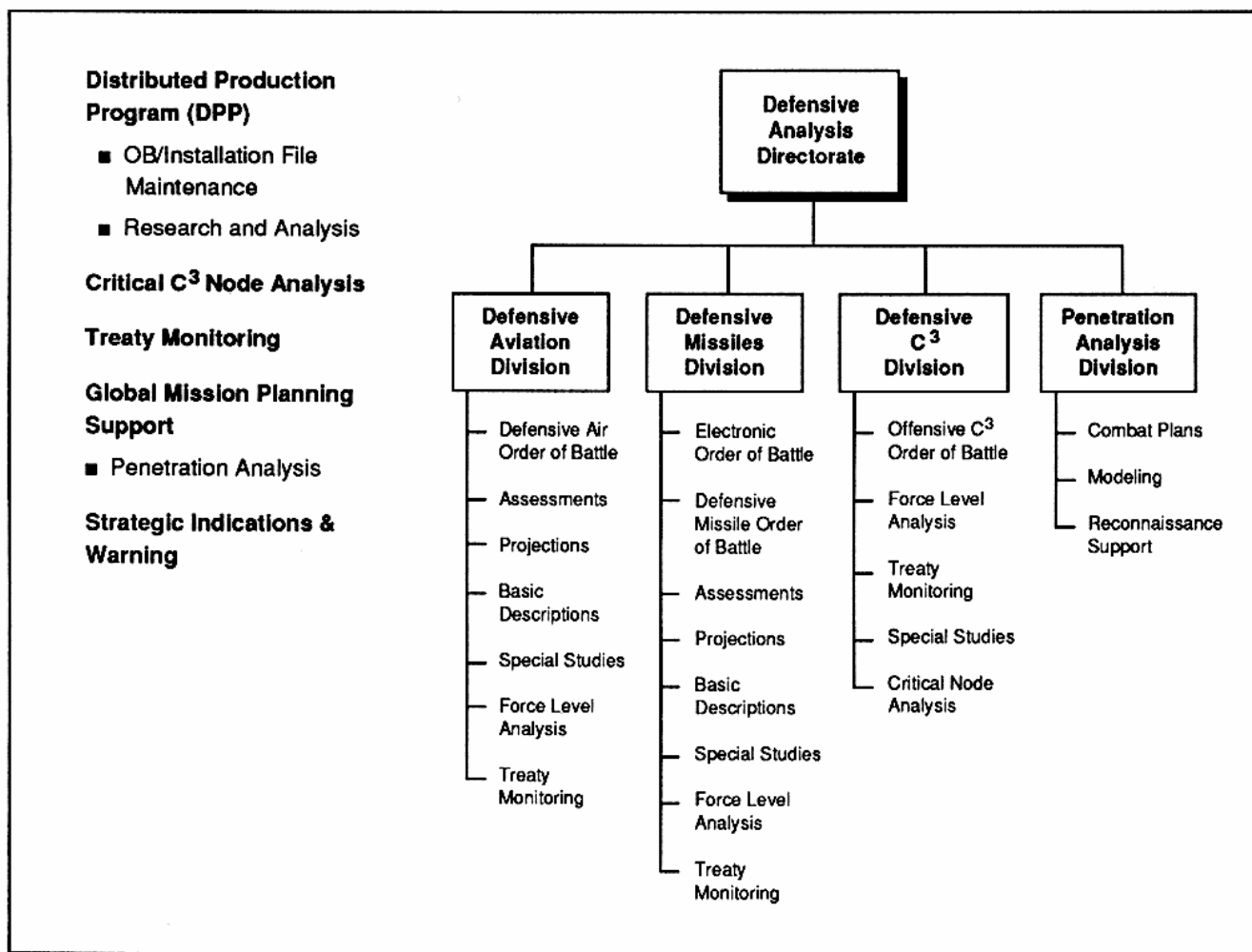**Figure 14**
Defensive Analysis Directorate (226)

That's how we see the division of labor (figure 18). I've already compared the size of Joint Intelligence Centers. Down at the bottom are those that need to come up, and I see a leveling coming.

I've already alluded to the evolution of our JIC (figure 19). There's the 544th's baseline — what we do today, then what would be added/deleted/changed for STRATJIC. Then this is what's needed for a Global JIC, which is not an official term but one that General Butler has used. He says he sees us as potentially evolving in that direction as Strategic Command evolves, i.e., support to all strategic, nuclear or not, and all nuclear, strategic or not.

We need to support global defense; even if STRATCOM doesn't have the strategic defensive mission, we need to be able to support those who

do. We don't need to reinvent what we already do at Offutt.

We need the global databases to monitor various treaties and weapons proliferation, and be prepared to act as an alternate National Military Joint Intelligence Center. What would we offer as an alternate NMJIC (figure 20)? Lots of C³I, some of which are listed on here. There are others in the black area that I can't bring out, but trust me, it's out there. My predecessor has built what has been referred to as an empire. I told General Welch when I was being sent out, "Not an empire, sir, a center of excellence." You raid empires, but you preserve and enhance centers of excellence. And our center of excellence has an unequaled imagery infrastructure. The most important piece of that whole infrastructure at
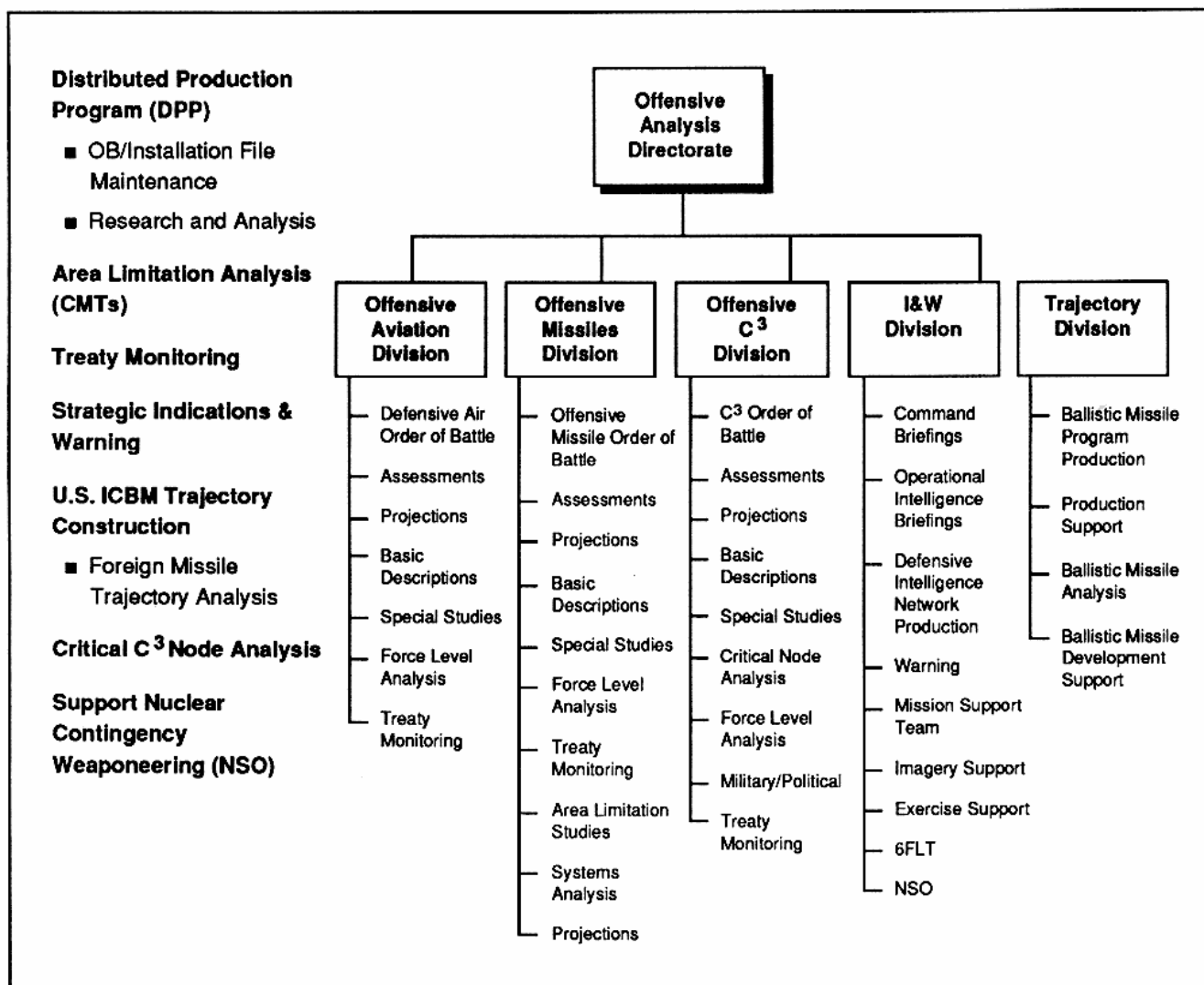
-23-

Distributed Production Program (DPP)

- OB/Installation File Maintenance
- Research and Analysis

Area Limitation Analysis (CMTs)

Treaty Monitoring

Strategic Indications & Warning

U.S. ICBM Trajectory Construction

- Foreign Missile Trajectory Analysis

Critical C^3 Node Analysis

Support Nuclear Contingency Weaponeering (NSO)

Offensive Analysis Directorate

Offensive Aviation Division
- Defensive Air Order of Battle
- Assessments
- Projections
- Basic Descriptions
- Special Studies
- Force Level Analysis
- Treaty Monitoring

Offensive Missiles Division
- Offensive Missile Order of Battle
- Assessments
- Projections
- Basic Descriptions
- Special Studies
- Force Level Analysis
- Treaty Monitoring
- Area Limitation Studies
- Systems Analysis
- Projections

Offensive C^3 Division
- C^3 Order of Battle
- Assessments
- Projections
- Basic Descriptions
- Special Studies
- Critical Node Analysis
- Force Level Analysis
- Military/Political
- Treaty Monitoring

I&W Division
- Command Briefings
- Operational Intelligence Briefings
- Defensive Intelligence Network Production
- Warning
- Mission Support Team
- Imagery Support
- Exercise Support
- 6FLT
- NSO

Trajectory Division
- Ballistic Missile Program Production
- Production Support
- Ballistic Missile Analysis
- Ballistic Missile Development Support

Figure 15
Offensive Analysis Directorate (277)

Offutt, I would say, is SACINTNET. It is the DOD's first fiber-optic local area network that connects not only everything within Building 500 at Offutt, but all of our units. We're able to send SCI (Special Compartmented Information) to the SCIFs (SCI facilities) that are at all of our units, so that our SCI cleared crew members can see the raw intelligence and trust that we're really telling them the truth out there. In time, we'll be going to compartmented mode and eventually multilevel security, we hope.

We also see some additional capabilities coming and that offers some alternate, backup capabilities which are being considered (figure 21). So all in all,

in summary, we say that the Strategic Joint Intelligence Center does the things that are listed here (figure 22). It presents opportunities for the future.

One thing I wanted to talk about — we're about out of time — was theater battle management (figure 23). Theater battle management is initially in the conventional area, and I've alluded to it, but it could conceivably apply to the nuclear area, as well. We need a way of pulling together ops and intel into a single architecture that considers the national level, the unit command level, the JFACC or the JTF level, and the unit level, and consolidates them into a single concept of operations, a single architecture, and hangs all the pieces on it. If it doesn't hang
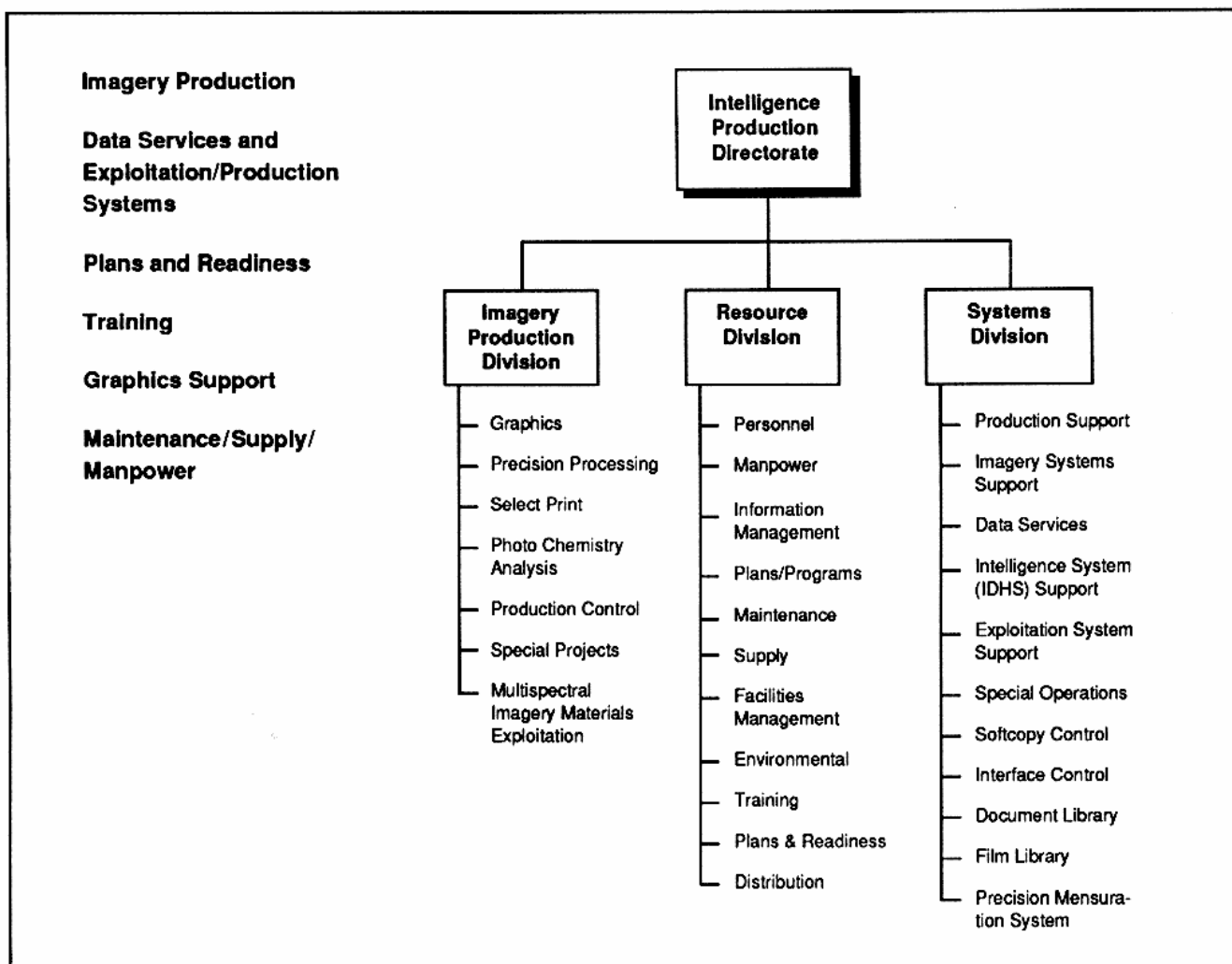
-24-

Figure 16
Intelligence Production Directorate (371)

on there, you don't buy it. We've talked about it for a long time; now I think we are finally beginning to do it because the people who really are influential in this are involved and really care about the process. In addition to intelligence, the DO of TAC and the DO of SAC are deeply involved. The Chiefs of Requirements of SAC and TAC are deeply involved. They're no longer spending all their time on hardware — platforms and munitions — but now are spending a heck of a lot of their time on C³I for maybe the very first time.

Oettinger: And you say you've got some skills and facilities and so on that would be useful to them? Is that it?

Horton: We would hope so. To say a little bit about what the objectives of TBM are, there's a list of things that we'd like to do (figure 24). But this scope for TBM is not all-inclusive (figure 25). If I gave that impression it is in the sense that it is the central shaded area — assessment planning, and ATO construction. But the actual execution of the air tasking order as you're delivering the ammunition and then the feedback process are outside of TBM, although maybe you don't need to incorporate all of that.

In the intelligence business we've got this very simplified architecture (figure 26) that is much more elaborate lately in its involvement. It talks about all the things I talked about. We want a connection
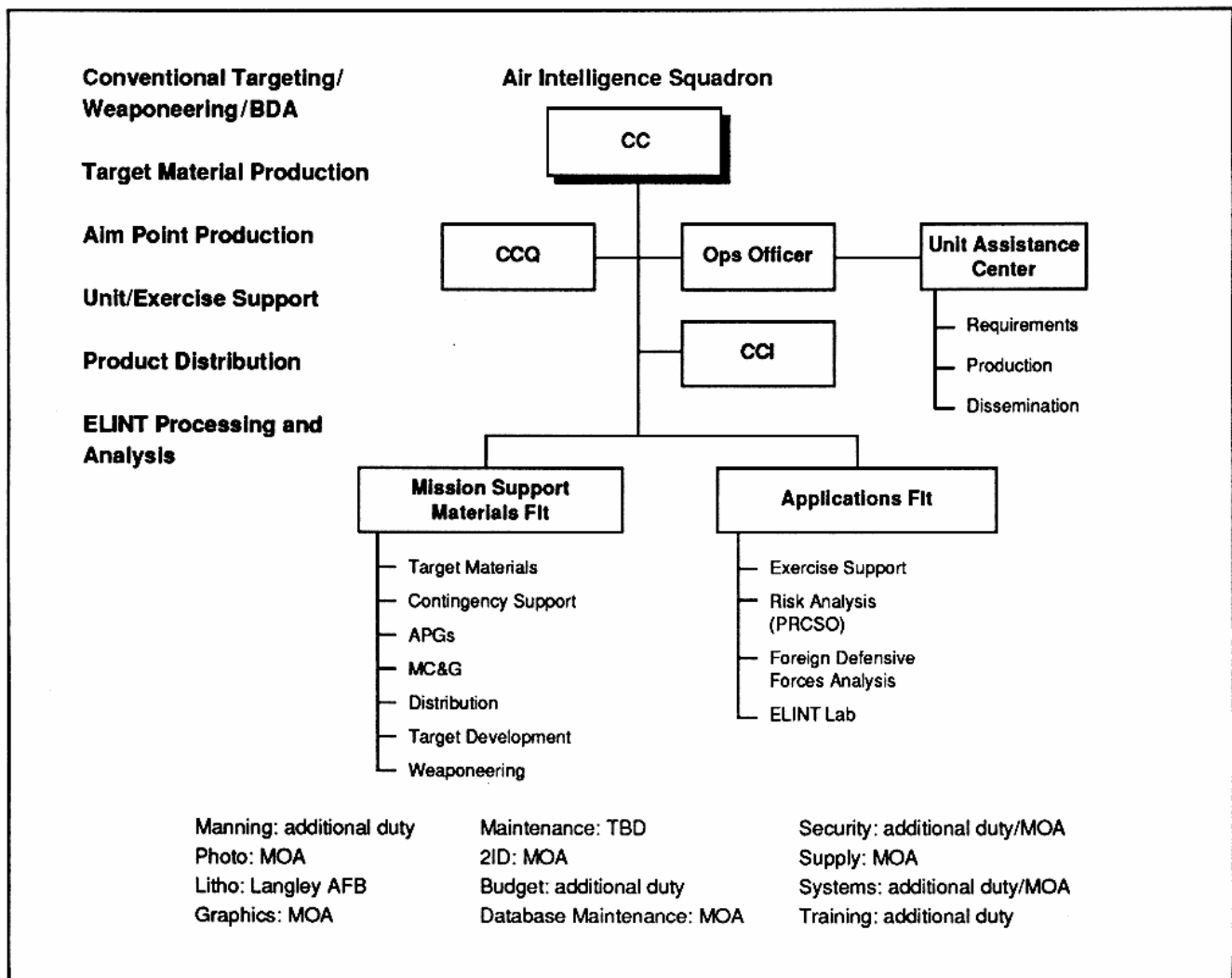
Conventional Targeting/
Weaponeering/BDA

Target Material Production

Aim Point Production

Unit/Exercise Support

Product Distribution

ELINT Processing and
Analysis

Air Intelligence Squadron

CC

CCQ — Ops Officer — Unit Assistance Center

CCI

- Requirements
- Production
- Dissemination

Mission Support Materials Flt

- Target Materials
- Contingency Support
- APGs
- MC&G
- Distribution
- Target Development
- Weaponeering

Applications Flt

- Exercise Support
- Risk Analysis (PRCSO)
- Foreign Defensive Forces Analysis
- ELINT Lab

Manning: additional duty   Maintenance: TBD   Security: additional duty/MOA
Photo: MOA   2ID: MOA   Supply: MOA
Litho: Langley AFB   Budget: additional duty   Systems: additional duty/MOA
Graphics: MOA   Database Maintenance: MOA   Training: additional duty

Figure 17
544th Intelligence Squadron (270)

among the Air Force commander of component wings, the theater collectors, the national collectors, and we need to bring all of that into one integrated whole, so everything can talk to everything. With regard to intelligence, these objective characteristics (figure 27) are what we are pursuing.

To show you that it is not just words that we are talking about, we've done a strategy-to-task analysis based on the first cut of the concept of operations , and architecture (figure 28). We did this analysis and got results identifying 73 key deficiencies in the intelligence area (figure 29). Generically, those were some of them. We came up with 66 procedural changes (figure 30). In the first cut, everybody

wanted to make a new start. I said, "We can't do that. Start with what you can do with what you've got, then tell me what can you do with modifications to what you've got. Then, having done all that, tell me what you don't have and can't modify and must have something new. Only then will we get something new because we can't afford a bunch of new starts." So we considered 49 program mods and issues, and only 7 were identified for urgent funding in fiscal year 94 (figure 31).

In the intelligence area, Sentinel Byte II is the architecture, the local area net, that ties together all the pieces of the input to the wing level. They can look at it at once and assist in briefing and debrief-

JICs	FY 1993 Authorizations	JDA
LANTCOM	1100	39
STRATCOM	941	TBD
PACOM	917	57
EUCOM	506*	24–35
SPACECOM	265	42
CENTCOM	≈153**	≈30
SOUTHCOM	≈150***	Not ID yet (CONOPS only)
TRANSCOM	34–79****	4

* EUCOM/J–2 is looking to build to approx. 800
** JMD is changing
*** Building now, CONOPS being staffed; 480th support
**** 34 authorized, will grow to 79—4 JDA now, future unknown; 480th support

Figure 18

JICs: A Numerical Comparison

ing the crews using this material and doing the mission planning. It's supposed to feed into the mission planning system directly and automatically when it gets to the Sentinel Byte II level. The other one, number five, Secondary Imagery Dissemination System (SIDS), puts an image on a screen for the person actually doing the ATO. They don't have to be at two terminals, they're at one terminal, working this and integrating operational intelligence. At every level, the idea is that you'll have intelligence, Red information if you will, and ops, Blue information, integrated in a single display. They'll be integrated at every planning level, right on down to the screen on the heads-up display in the cockpit. As you put real-time intelligence in the cockpit, it'll be screened somehow to eliminate the irrelevant, errors, and inaccuracies, but still be timely so that pilots know about new threats that are popping up in their route to the target, or if it's a new target, how to get to that target with a minimum degree of attrition on the way. All in all, we think that what we're about is trying to achieve that guidance that we started out with, and I would end with our logos tied together by the symbol of the

spirit of SAC intelligence, which now is the spirit of Strategic Command intelligence. They're the eagle against the flag. Thereby, I conclude.

Oettinger: Sir, we thank you.

Horton: It was my pleasure. Yes, ma'am?

Student: If I understood you correctly, you said that the idea of dedication to a particular command was dispensed with during Desert Storm. How is it going to affect the military in the long term, I mean as a community? I'm really disturbed by this.

Horton: Are you talking about whether we have permanently broken down or only temporarily broken down the barriers between services? I think it is sort of in between. We have learned once and for all, I think, at least in this generation of leadership and the next one coming up, having gone through this experience, that we will fight jointly, we will fight in coalitions; we will not fight as separate services. We must develop a concept of operations to work together and architectures supporting those concepts of operations to allow us to work together and exercise together. But there
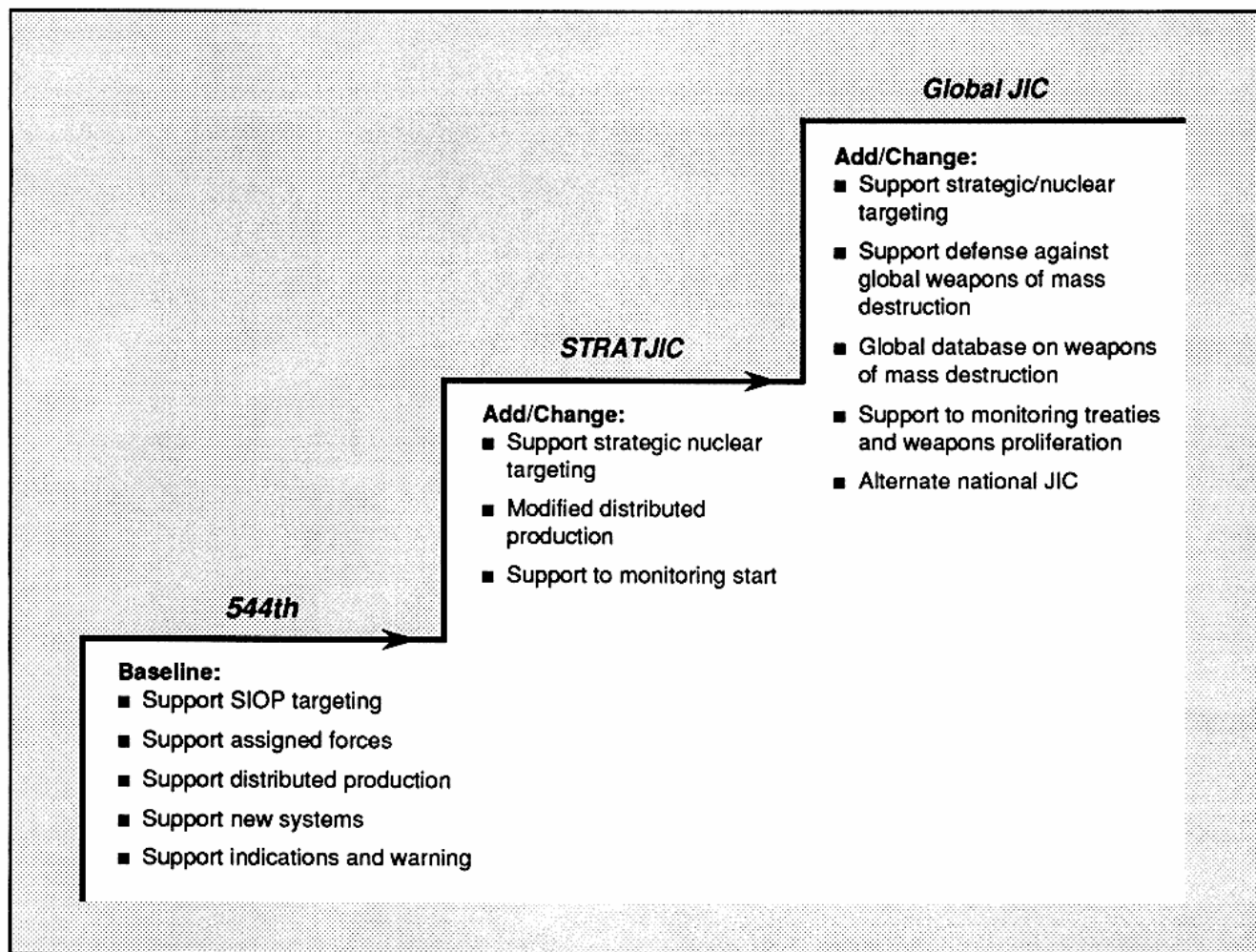
Figure 19
Evolution

will still be, I expect, the separate services developing in accordance with those common approaches to warfare — the hardware and the training and so on to support. There are those who would say, "Why don't we just abolish the services? Why don't we just have unified/specified commands?" That was tried in Canada and it didn't work out all that well.

Not to say that it couldn't work, but my anticipation would be that it is not likely to be tried here any time soon, although I could be proven wrong.

Oettinger: Thank you, again.

Horton: Thanks a lot. I'm on my way.

Unequaled infrastructure

Fully integrated system architecture

- Automated collection management
- SACWARNS
- DDS III
- IDEX
- DITS

Other system architecture

- Matrix
- Automated/advanced penetration analysis system
- Premier DOD photoprocessing facility
- All-source ELINT

Unique processing capabilities

- Skilled manpower
- Other SAC worldwide communications
- I–90
- MIMES
- RTAPS
- STATS III
- RAILS
- SAC INT NET
- SIGINT
- New facility (provisions for growth)
- Secure video hub
- Major JCS chart production and distribution facility (moving to DMA)
- Potentially more to come
- Considered for more backup to national systems
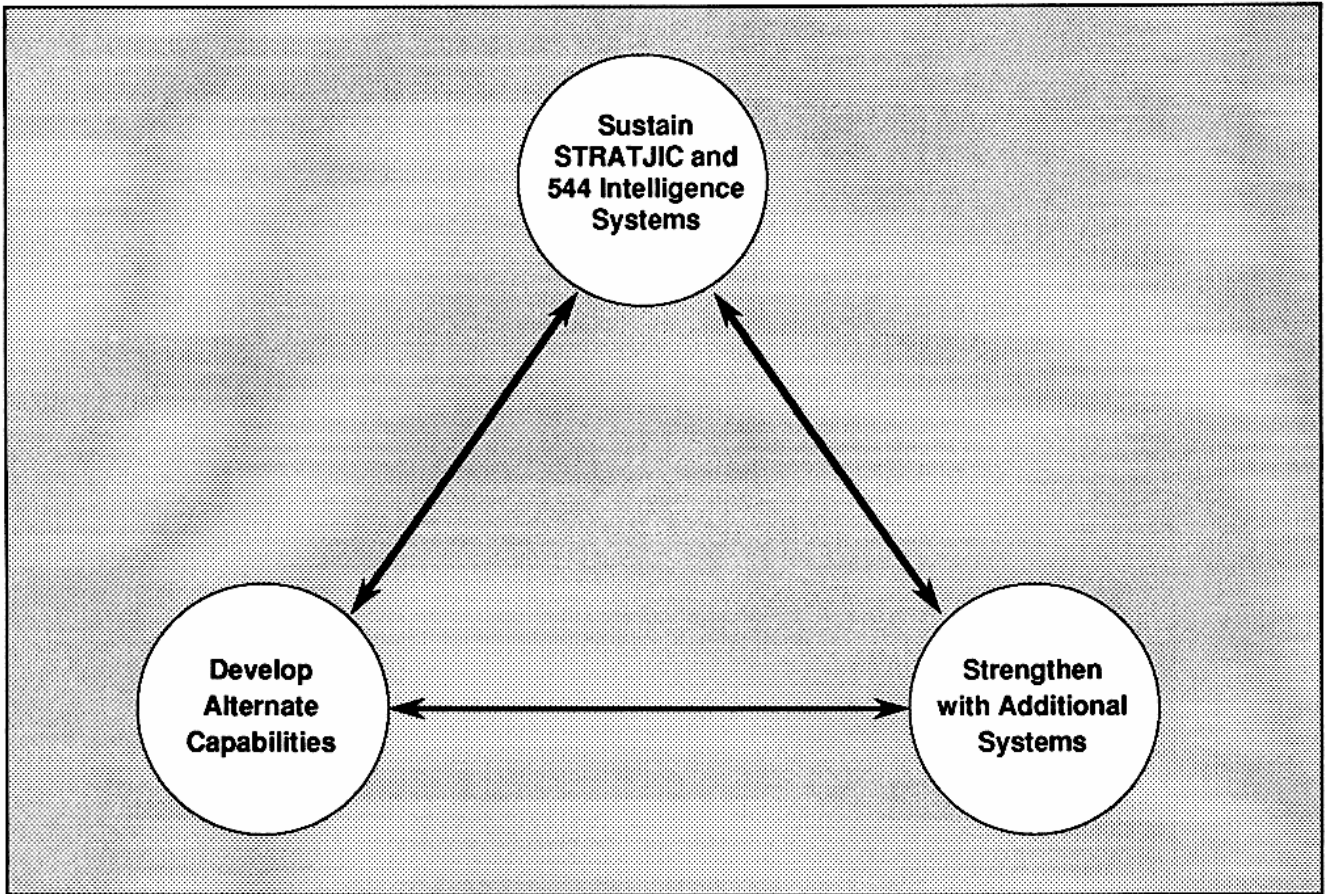
A National Asset

Figure 20
What Does Offutt Offer?

Figure 21
Recommendations

STRATJIC Concept:

- Preserves intelligence capabilities necessary for CINCSTRAT to accomplish his assigned missions

- Represents optimum economies and efficiencies

- Fully complies with DOD, JCS and Air Force guidance

- Offers resources beyond joint and air staff recommended levels to ACC and AMC, and offers support to them from the JIC as well

- Preserves a unique and irreplaceable national asset

- Presents opportunities for the future

Figure 22
Summary

- Adopt open system software standards

- Migrate towards common hardware

- Adopt a common mapping system

- Standardize man–machine interfaces

- Eliminate redundancy in architecture

- Reduce proliferation of computer systems

- Eliminate security as a constraint to automatic data exchange

- Provide a secure, integrated C^3I network with no single point of failure

Figure 24
TBM Objectives

"There is an overarching need to reduce the time from decision making to application of firepower. There is an equally compelling need to improve the efficiency of that process commensurate with the increasing sophistication of weaponry involved. These require automation and integration of C^3I systems throughout the spectrum from planning of the tasking order to planning and execution of the mission tasked."

Theater Battle Management
Working Group
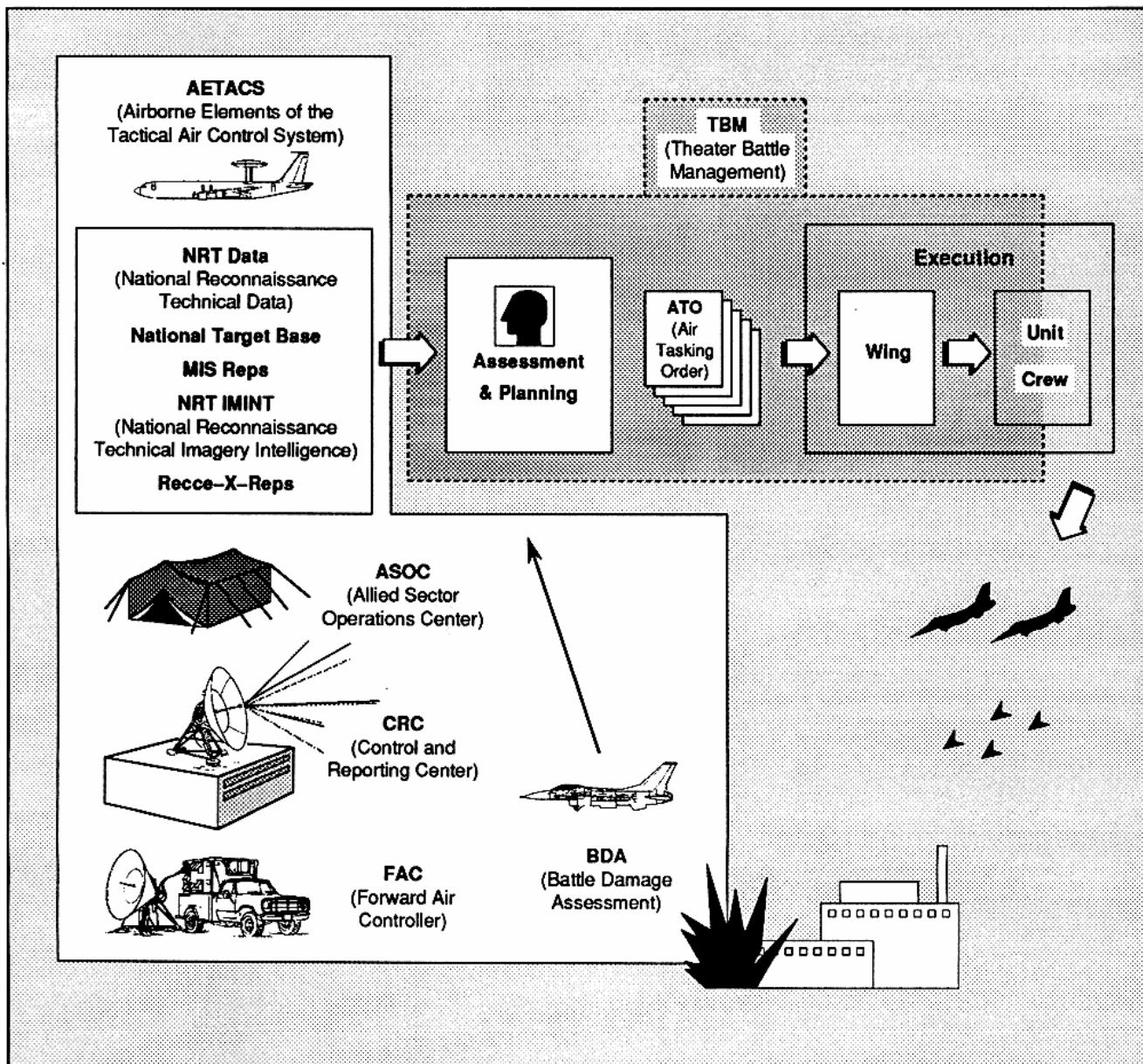
Figure 23
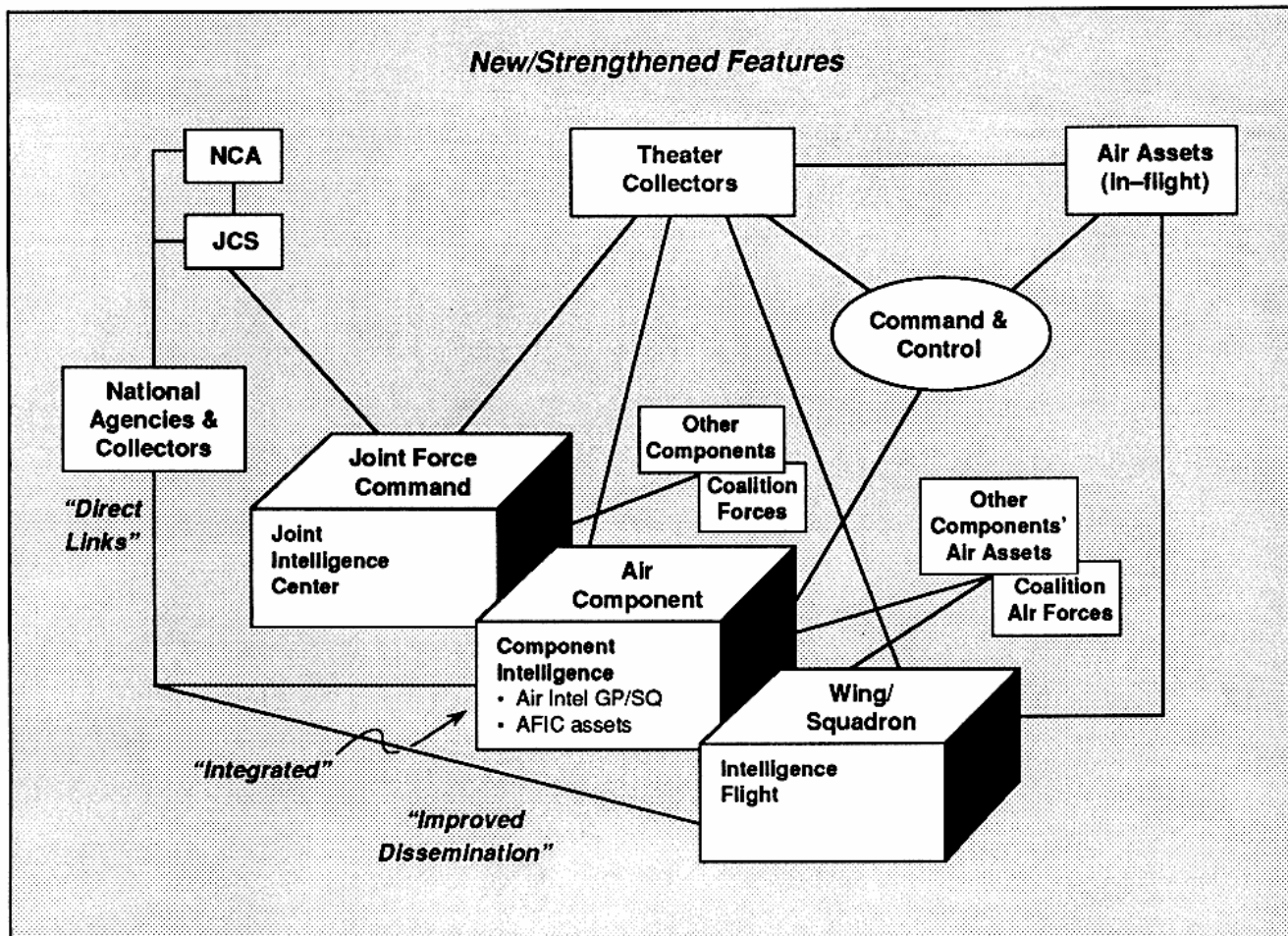**Goal of TBM—Improving C^3I**

Figure 25
Scope of TBM

Figure 26
AF Theater Intelligence—Objective Concept

- Integrated all-source intelligence to provide focused organic support

- Joint Intelligence Centers created to support CINC and components

- Collection/reconnaissance assets with direct links to theater

- Standard automated and deployable intelligence systems integrated with C^2 and mission planning systems

- Communications to disseminate intelligence to units

- Expanded national/theater NRT intelligence broadcast systems

Focus on Missions/Applications

Figure 27

**AF Theater Intelligence:
Objective Characteristics**

Performed strategy–to–task analysis within time constraints to impact FY94 POM

Identified 73 deficiencies

- Intelligence deficiencies included:

  - interoperability issues

  - insufficient automation

  - poor database support

  - insufficient digitized products

  - lack of situation awareness

Figure 29

Analysis Results

Analyzed C^2, intelligence and communications tasks to determine current capabilities and deficiencies, identify fixes, review priorities, and redirect resources.

- Interoperability initiatives included the adoption of common hardware standards by FY93 and standard automated interfaces by FY94.

- Identified FY94 POM "must fixes" to support planning and executing the ATO within the required 12 hour timeline.

- Recognized need to perform an information flow analysis and develop a more detailed TBM C^3I architecture.

Figure 28

TBM Strategy–to–Task Analysis

Identified 66 procedural changes for MAJCOM staffing

- Define CONOPS/architecture for intelligence systems

- Develop combat assessment/BDA methodology

- Define/enforce DOD and AF standards (MCG&I, SIDS, databases)

- Integrate constant source and TIBS

Considered 49 program mods/initiatives

- Expand sentinel Byte to incorporate SIDS, NRT intelligence and electronic footlocker

- Automated sentinel Byte/MSS interface

- Integrated battlefield situation display

Figure 30

Analysis Results, cont.

Identified 66 procedural changes for MAJCOM staffing

Considered 49 program mods/initiatives

Identified 7 top priority FY94 POM "must fixes:"

	FY 1994 ($ Millions)	FYDP ($ Millions)
1. Field MTACC/CTAPS in PACAF/USAFE	$20.0	$48.0
2. Sentinel Byte block II	20.5	98.6
3. Portable satellite terminals	27.0	43.6
4. Expand AF WCCS	36.7	234.7
5. Integrate SIDS on CTAPS/TAFLC	5.7	32.4
6. Upgrade AF C^2, cargo, and PAX system	13.5	44.8
7. Battlefield situational displays	7.6	27.6

Figure 31

Analysis Results, cont.