

# **Strategic Airlift Inefficiencies from Desert Shield/Storm to Vigilant Warrior**

**by**

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To project military power, sustain it, and decisively win future conflicts, the United States must be able to execute deployable plans in a timely manner, gain access to local ports and airfields, and possess adequate airlift and sealift to accomplish the mission.<sup>1</sup>

U.S. Congress, *Conduct of the Persian Gulf War*

A half decade ago, a U.S. led coalition defeated the forces of evil in Southwest Asia. Since then, we've heard much about the 100 hour ground war of DESERT STORM and much about the 1000 hour air campaign. But much has not been written about the 10,000 logistics war, a major part of which was the biggest airlift in history.

Perhaps now, on the five year anniversary of our impressive Gulf War victory, we should see if the the lessons of the biggest airlift in history were learned. As General Fogleman has said,

My experience has been the half-life of information is tied directly to the average duration of a single assignment. For most military people that turns out to be three years.<sup>2</sup>

Operation DESERT SHIELD/STORM was by far the biggest airlift in history. Every six weeks the equivalent of one Berlin Airlift, up to that time the world's biggest airlift, was accomplished.<sup>3</sup> Although the DESERT SHIELD airlift was successful, there were major problems that became evident immediately. These included: the lack of an operational plan (OPLAN) on which to base a transportation schedule, an "essentially useless" automated information system, an insufficient number of bases enroute and in theater, and poor base support at many of these locations.<sup>4</sup>

Numerous studies after the Gulf War indicated that the Military Airlift Command (MAC), now called Air Mobility Command, needed to make changes to improve airlift efficiency. Scores of lessons learned were collected from the DESERT SHIELD airlift, and work was done to correct these problems and implement corrective actions.

Demands on airlift have only increased since the Gulf War, even though overall the military as a whole continues to downsize dramatically. In fact, the post Cold War period has elevated strategic airlift's importance in America's national military strategy. In this environment, all available airlift must be used in the most efficient manner possible, and to accomplish this the problems of planning and basing must be resolved.

This article will analyze if these problems from DESERT SHIELD/STORM were corrected by comparing the DESERT SHIELD airlift with Operations RESTORE HOPE (Somalia), UPHOLD DEMOCRACY (Haiti), and VIGILANT WARRIOR (Kuwait). The following questions were used for this analysis:

### ***Planning***

1. Did an operational plan (OPLAN) and Timed Phased Force and Deployment Data (TPFDL) exist?
2. Were personnel from the United States Transportation Command (USTRANSCOM) and AMC involved in the planning process?
3. Were planning factors realistic?
4. How effective were communications between AMC, USTRANSCOM, and the users?
5. Did the Joint Operational Planning and Execution System (JOPES) operate up to expectations?

### ***Basing***

1. Was there any problem securing a stage base in theater or anywhere en route?
2. Were there any problems with communications between bases in the airlift system?
3. How effective were the Tanker Airlift Control Elements (TALCEs) and Global Reach Laydown Packages (GRLPs)?
4. Was there adequate material handling equipment (MHE), maintenance, supply, and other support at en route and forward operating bases (FOBs).

## **DESERT SHIELD**

Although deployment of US forces in the operation was successful, it identified several weaknesses in US rapid deployment capabilities.<sup>5</sup>

U.S. Congress, *Conduct of the Persian Gulf War*

On 2 August 1990, Iraq invaded Kuwait, and on 7 August the first of over fifteen thousand DESERT SHIELD/STORM strategic airlift missions began arriving in Southwest Asia. In the rush to get adequate air and land combat forces deployed to blunt a possible Iraqi attack through

Kuwait into the Gulf states, the airlift quickly increased its tempo to an unprecedented level. In the first thirty days, MAC transported 72,000 tons of equipment and 91,694 personnel for several hundred combat aircraft, the 82nd Airborne Division, elements of the 101st Airborne Division, Marine units, and support units.<sup>6</sup> Overall the DESERT SHIELD strategic airlift was a success, but there were many problems, especially in planning and basing. These problems prevented the airlift system from operating up to expectations.

The primary purpose of strategic airlift planning is to ensure that airlift is used efficiently in meeting requirements of an OPLAN. But, according to the exhaustive study *The Gulf War Airpower Survey*: "The deployment and use of airlift, particularly in the early days, was anything but well executed."<sup>7</sup> In fact, DESERT SHIELD can easily be considered a model of how not to plan a strategic airlift because problems were so numerous.

The first major long-term planning problem that existed at the outset was that no final OPLAN nor TPFDL existed.<sup>8</sup> As a result of not having a complete OPLAN, the transportation requirements were developed on a daily, and sometimes hourly, basis as the crisis unfolded. This made it impossible to use the airlift system efficiently in the first few weeks.<sup>9</sup> Without an approved transportation plan, of which the TPFDL was the major portion, deploying units used gross estimates of their requirements, and this caused tremendous difficulties in airlift efficiency.

In addition to not having a completed OPLAN nor a well planned TPFDL, another problem quickly became apparent. According to the RAND Corporation, no experienced transport planners were involved in the planning process until the deployment order was issued on 7 August 1990.<sup>10</sup> Expectations of lift capability were based on out-of-date OPLANs. As a result of USTRANSCOM and AMC planners being left out, airlift requirements were initially unrealistic. For example, early requests sent to MAC by United States Central Command (USCENTCOM) were as much as three times larger than the capability MAC said it could provide.<sup>11</sup>

Compounding the problems with long-term planning of having no OPLAN, no TPFDL, and no participation in predeployment planning by airlift experts, were unrealistic planning factors and overly optimistic assumptions. MAC planners initially used aircraft utilization (UTE) rates, mission-capable rates, and payload planning factors that were unrealistic.<sup>12</sup> For example, UTE rates were a third to a half below planned levels; the percentage of C-5 aircraft available was only sixty-seven percent and at times fell to as low as fifty percent, while the availability for the C-141 was eighty-one percent.<sup>13</sup> Average payloads were twelve to forty percent below planning factors. But to give MAC credit, the airlift users were also guilty of grossly inaccurate estimates. Forecasted lift requirements for the first seven deploying units increased by sixty percent between 11 and 13 August 1990 because of poor initial forecasts by users.<sup>14</sup>

Serious problems developed immediately in implementing this deployment schedule because of poor communications between USTRANSCOM, MAC, and the deploying units. Efficient, orderly, and timely execution planning was crippled for two main reasons: Command and control (C2) within MAC was overwhelmed, and most deploying units, except the 82nd Airborne Division, Air Force units, and Marine expeditionary brigades, were not fully prepared for deployment.<sup>15</sup> MAC C2 was so poor that several studies characterized it as "essentially useless," causing the deployment to be "anything but well executed."<sup>16</sup>

Further exacerbating execution planning was the JOPES and its inability to update rapidly changing TPFDLs. This system creates the sequence for each unit to deploy by dividing that unit into a TPFDD.<sup>17</sup> Each TPFDD contains data such as amount of cargo and personnel deploying, ports of embarkation and debarkation, type of lift required, and other information.<sup>18</sup>

According to the Congressional report on the Gulf War, JOPES suffered from three major problems. First, information for deployment was not loaded into the TPFDL. Second, USCENTCOM changed requirements constantly, and JOPES could not react fast enough to these numerous and frequent changes. And third, there was a severe shortage of JOPES- trained operators at CENTCOM and deploying units.<sup>19</sup>

Another major problem was the lack of a stage base in Southwest Asia where MAC aircrews could crew rest. This would have allowed MAC to use only two pilots per mission instead of three. Without this stage base in theater, three pilots had to fly missions from Europe into the AOR and back to Europe within a twenty-four hour period. MAC tried for twenty-nine days to get Jeddah as a stage base, but was always denied by USCENTCOM.<sup>20</sup> Because of the finite number of aircrews available - including mobilized reservists - this lack of a stage base resulted in a twenty to twenty-five percent reduction in strategic airlift capability.<sup>21</sup>

Base infrastructure was another problem. Perhaps the most serious infrastructure shortfall was the lack of adequate communications between enroute and FOBs. Inadequate communications made it difficult to transmit information about changing schedules. Many times bases would be notified of inbound missions not hours before, but rather when those aircraft made their required radio call thirty minutes prior to landing. This made servicing the aircraft within preset time limits often impossible. HQ MAC/XPY stated in October 1990 that "Automated systems were simply not up to the task . . . nor was adequate communication capability available enroute and in theater to conduct MAC operations efficiently."<sup>22</sup>

Airlift Control Elements (ALCEs), later renamed "TALCE," were deployed immediately upon receipt of the alert order on 7 August 1990 and the ALCE from McGuire AFB arrived at Dhahran the following day. ALCEs were deployed to Riyadh, Cairo, King Fahd, Oman, and other locations. The ALCE at Dhahran was clearly the most task saturated, handling fifty-nine percent of all strategic airlift in the AOR.<sup>23</sup> All these units did the best they could, and many times more, to resolve seemingly insurmountable problems with C2 and base infrastructure shortfalls.

One problem ALCE personnel had to contend with throughout the Gulf War was insufficient and unreliable MHE. These vehicles were 1960s technology that suffered repeated breakdowns because of the harsh desert climate. Although the specific reduction in airlift due to MHE problems was never calculated by MAC, a RAND study did conclude that, "MHE problems did slow down the airlift flow by restricting the maximum number of aircraft that could be handled at a base at a given time."<sup>24</sup> MHE problems also caused backlogs of pallets at APOEs and APODs. At McGuire AFB, over one thousand pallets quickly piled up by late August 1990, while at Dhahran, thirteen hundred pallets accumulated because there was not enough MHE to move the palletized cargo to trucks for shipment to receiving units.<sup>25</sup> By late September, five of ten "25K" loaders, a common type of MHE, were broken at Dhahran.<sup>26</sup>

Besides spare parts for MHE, the only other serious supply problem was the shortage of pallets, although this did not impact airlift operations. At one point, only 35,000 pallets out of 140,000 could be accounted for.

By October 1990 complaints arose about MAC's inability to deliver critical spare parts to Southwest Asia. On 31 October MAC started the "Desert Express" which ensured next-day delivery of spares, and two additional daily flights were added by war's end, including a "European Express." All the services used these flights, and the high reliability of weapons systems in the Gulf proved how MAC successfully solved this early problem of supply shortages.<sup>27</sup>

There was one basing problem that airlifters had to contend with that was inexcusable: deliberate mistreatment by fellow Americans. At Torrejon, the Spanish commander moved his forces before the U.S. commander moved his, MAC aircrews were treated more as "profit potential than as Air Force members," and they were billeted three-to-a-room while crews from other commands got single rooms. Only intervention by then MAC commander and CINCUSSTRANSCOM General H.T. Johnson solved this situation. At Dhahran, the 1st TFW prohibited the ALCE personnel from eating in their dining hall and forced them to find quarters with the 82nd Airborne Division. General Johnson didn't hear about this segregation problem until it was too late, and he described this situation: "We were treated worse than any foreign country would treat us."<sup>28</sup>

The Gulf War strategic airlift was a success despite serious shortcomings in planning and basing. MAC airlifted the equivalent of the entire state of Wyoming with their personal belongings over eight thousand miles and back in nine months. No other nation could have moved a fraction of this enormous effort.

## **RESTORE HOPE**

In its most hectic phase, RESTORE HOPE succeeded because AMC was willing and able to make a series of adjustments after the initial push had established a plan and created an en route structure for the operation.<sup>29</sup>

Kent Beck and Robert Brunkow, *Global Reach in Action: The Air Mobility Command and the Deployment to Somalia*

Operation RESTORE HOPE was the humanitarian and peacemaking operation conducted in Somalia by the U.S.-led coalition from 9 December 1992 through 4 May 1993.<sup>30</sup> It was the first test of the new post-Cold War U.S. defense strategy of rapidly deploying long distances directly from the CONUS.

RESTORE HOPE was also significant in that it was the first large scale test of AMC and of the Tanker Airlift Control Center (TACC). AMC was activated on 1 June 1992 from the remains of the MAC and most of the aerial refueling tankers from the Strategic Air Command (SAC). The TACC is an enormous C2 center within HQ AMC that directs all strategic airmobility missions.

Air Mobility taskings flow directly from the TACC to units worldwide. General Ronald R. Fogleman described Somalia as "the first time our air mobility forces [airlifters and tankers] have been engaged in a major exercise in their post-Cold War configuration."<sup>31</sup> Overall, it carried about 5 percent of the cargo transported during the Gulf War.<sup>32</sup>

The airlift went smoothly and quickly, but many participants complained about difficulties in planning, coordinating, and managing the operation.<sup>33</sup> These problems, combined with obstacles in base availability and an extremely austere infrastructure in Somalia tested AMC's ability at learning from its mistakes during DESERT SHIELD/STORM. RESTORE HOPE was a success because it stopped the starvation in Somalia, but closer analysis reveals concerns with the strategic airlift.

As in Operation DESERT SHIELD, an OPLAN did not exist for RESTORE HOPE, but while USCENTCOM had five days to conduct pre-deployment planning for the Gulf War, they began planning two and a half weeks before 9 December 1992 which became D-day.<sup>34</sup> By D-day, these plans had been well developed, although Army support forces had not been completely identified.

During this planning period, General Fogleman and several members of his staff visited Somalia on 26 November 1992 to assess the infrastructure. General Fogleman also directed the TACC to "lean forward" by initiating planning for a "possible large scale airlift to Somalia."<sup>35</sup>

As in DESERT SHIELD/STORM, there was no preexisting TPFDL for Somalia. According to a RAND analysis of RESTORE HOPE, "Many participants complained that the TPFDL was constantly changing and that, without a reliable plan, lift was wasted."<sup>36</sup>

But unlike the Gulf War, transportation planners were involved at the very beginning of the planning process. This helped mitigate the need to create from scratch an OPLAN and supporting TPFDL.

This close coordination between USTRANSCOM, AMC, and USCENTCOM allowed several important air mobility issues to be worked simultaneously. These included securing basing rights for aircraft, moving AMC personnel into the enroute system to prepare for the airlift surge, and refining the CONOPS.<sup>37</sup>

However, despite this early involvement by airlift experts in the planning for RESTORE HOPE, shortcomings were aired at a "hot wash" conference at Scott AFB on 8 February 1993. Airlift participants said that the CONOPS could have been "more timely and more comprehensive."<sup>38</sup> The TACC was task saturated because it developed and executed the RESTORE HOPE plan, diverting it from its primary mission of execution planning.<sup>39</sup> But perhaps the most significant recommendation this hot wash suggested was the need to create a range of plans to consult in a crisis, initially "fill in the blank" plans and ultimately regional plans.<sup>40</sup>

Planning factors were still a problem during Somalia. During January 1993, Army strength in the theater tripled to slightly more than ten thousand troops, far fewer than the 13,400 soldiers planners had predicted in early December.<sup>41</sup> Sustainment airlift throughput was also below

expectations. Airlift deliveries in the first six weeks were less than thirty percent of the estimated eighty-five thousand tons planned for.<sup>42</sup>

At a USTRANSCOM "Significant Lessons Learned" briefing about RESTORE HOPE on 25 April 1994, it was concluded that the global command and control system needed to be fixed.<sup>43</sup> In early December 1992 a "major crash" in the world wide military command and control system (WWMCCS) hampered C2 of deployment operations.<sup>44</sup> Also, lack of reliable communications between the deployed JTF in Mogadishu, Somalia and CONUS organizations hindered efficient execution planning.<sup>45</sup>

RESTORE HOPE was the second test of the TACC, the first being the disaster response to Hurricane Andrew. The TACC concept appeared to have worked well, improving the coordination and execution of the airlift. With the TACC as the only manager of strategic airlift, "AMC has been able to closely track requirements, airfield capacities, and resource availability."<sup>46</sup> During the first eighteen days of RESTORE HOPE, AMC filled 91 percent of Somali airfield cargo capacity and nearly 80 percent of its passenger capacity.<sup>47</sup>

What improvements there were between AMC, USTRANSCOM, and deploying units during RESTORE HOPE were overshadowed by serious problems with JOPES and its ability to process rapidly changing TPFDLs. As in DESERT SHIELD, there were not enough JOPES-trained operators. The 10th Mountain Division was the major U.S. Army unit deployed, but it was neither staffed nor equipped to put TPFDL information into JOPES.<sup>48</sup> Data for the division was entered at the XVIII Airborne Corps, and as a result there was confusion, delays, and duplication of work. The result was a repeat of problems during the Gulf War: airlift was sent to carry cargo that never appeared, the wrong amount of airlift was sent, and airlift was simply wasted.<sup>49</sup> The Center For Army Lessons Learned (CALL) study on RESTORE HOPE recommended that "USTRANSCOM should continue to refine JOPES, improve flexibility, and make it user friendly."<sup>50</sup>

Because many of the deployment requirements originated from JTF RESTORE HOPE based in Mogadishu, and because communications with the JTF was initially poor, problems with JOPES were worsened. Other problems compounded deployment execution: the Army's inability to prioritize airlift requirements, inaccurate TPFDLs and lack of discipline using JOPES.<sup>51</sup> The issue here is not how to prevent TPFDLs from changing, but how to input those changes efficiently into the system. The nature of contingency execution will always require JOPES and other C2 systems to react quickly. During RESTORE HOPE JOPES failed this test once again.

As a result of DESERT SHIELD and RESTORE HOPE, USTRANSCOM began conducting TPFDD planning conferences to straighten out CINCs' plans and to make sure that they were feasible from a transportation perspective.

Most of the strategic airlift missions originated in the CONUS, transited European bases, and flew into one primary airfield in Somalia--Mogadishu. The air distance was slightly longer than the Gulf War, and Somalia was more logistically challenging because of the extremely austere infrastructure that could be characterized as "bare, bare base."

The use of Cairo West, Jeddah New, and Taif as stage bases proved invaluable during RESTORE HOPE because of the lack of fuel in Somalia. Aircraft would depart these bases with near-maximum fuel loads and fly round trip without refueling in Somalia. C-141s used Cairo West while C-5s and KC-10s were based in Jeddah New and Taif.<sup>52</sup> Limited infrastructure and security concerns prevented aircrews from staging in Somalia, but these stage bases within the AOR proved to be very effective and allowed efficient use of strategic airlift, unlike DESERT SHIELD in which stage bases were limited to Europe.

While the availability of bases was adequate enroute but very limited in Somalia, base infrastructure limitations posed additional challenges. Communications with these bases were inadequate during the first weeks of RESTORE HOPE.<sup>53</sup> Personnel in Somalia got little or no warning of units aboard arriving aircraft, and the JTF had difficulty initially getting airlift movement reports. Communication was also limited to the Defense Switching Network (DSN) until 1 January 1993 when WWMCCS became available.<sup>54</sup>

The ALCEs had been renamed the TALCEs to symbolize the inclusion of KC-135 and KC-10 tankers into AMC. These units were deployed between 2 and 7 December 1992 to Cairo West, Mogadishu, Griffiss AFB, March AFB, Kenya, and to other locations.<sup>55</sup> Because there was absolutely no usable infrastructure in Somalia except three runways, virtually all infrastructure had to be brought in. Although there were problems with communications, TALCE personnel did a good job. However, the need for a new concept called a GRLP became apparent. This involves deployment force modules that can operate any type of airmobility bare base and can be loaded into a CINC's TPFDL in minutes.<sup>56</sup> General Fogleman summarized the need for this improvement when he said, "we're taking a new look at our en route structure and our contingency laydown forces, because in the future we will have to do business in a different way."<sup>57</sup>

The TALCEs worked well, as concluded by CALL: "The principle of early deployment of required logistical and terminal control elements was successfully applied by the U.S. Air Force."<sup>58</sup>

While RESTORE HOPE was much smaller than the Gulf War airlift, it was more logistically challenging because all support had to be brought in.<sup>59</sup> Fuel was the most limiting factor, but as already explained, AMC did an excellent job at solving this problem. Lack of airfield lighting and navigational aids at Cairo West and Mogadishu prevented night landings during the first week of RESTORE HOPE.<sup>60</sup> In addition, MHE, maintenance, and supply enroute were never overloaded because airlift planners worked backwards from the MOG constraints in Somalia to schedule airlift.<sup>61</sup>

The Operation RESTORE HOPE strategic airlift was a success, despite many recurring problems from DESERT SHIELD in planning and basing.

#### UPHOLD DEMOCRACY

It is an exceptionally well-executed operation.<sup>62</sup>



Operation UPHOLD DEMOCRACY was the peaceful restoration of democracy to Haiti via the permissive, or peaceful entry of 25,000 U.S. troops beginning on 19 September 1994. This operation came within two hours of becoming the biggest airdrop of paratroopers since MARKET GARDEN during World War II. Sixty-one C-130s were airborne and sixty C-141s were on runways on the East Coast of the U.S. with 3700 hundred paratroopers when the mission was canceled.<sup>63</sup>

Unlike the Gulf War and Somalia, Haiti had a detailed OPLAN. In fact it had two plans which had been written during the twelve months prior to execution of this contingency. These included OPLAN 2370 for JTF 180, the plan for the non-permissive entry using paratroopers; and OPLAN 2380 for JTF 190, the plan for the permissive entry of Haiti.<sup>64</sup> These plans were written by the staffs of the XVIII Airborne Corps and the 10th Mountain Division respectively. U.S. Atlantic Command (USACOM) oversaw the development of both OPLANs.

This planning was done right up until D-Day when the President decided to use a modified version of OPLAN 2380 which became the "permissive plus plan."<sup>65</sup> Several problems resulted from taking two OPLANs up until execution. According to CALL, "there was not enough strategic airlift to support both plans well."<sup>66</sup> Also, it became very difficult to change the TPFDLs. According to Lt Col Mike Gelwix, the Chief of Staff and G-3 for JTF Mountain, the TPFDL for the permissive entry was not even completed prior to deployment to Haiti. He said that the "nightmare" began when the 82nd Airborne Division turned around in flight and his staff began to do a teleconference on the USS Whitney to finish OPLAN 2380.<sup>67</sup>

Because of last minute planning due to the sudden change from a non-permissive to a permissive entry, there was mass confusion at the airport at Port-au-Prince, the main APOD for the strategic airlift. The 436th Airlift Wing TALCE from Dover AFB, Delaware, did not arrive until H+24, there were no air traffic controllers initially, and a severe shortage of military policemen became evident.<sup>68</sup>

Airlifters were not included in the early planning for Haiti. The Air Force senior officer for UPHOLD DEMOCRACY, Brigadier General George Gray, III, was not involved at all in the planning process.<sup>69</sup> In fact USTRANSCOM was not invited into the deliberate planning process until four months after OPLAN development began in earnest in January 1994.<sup>70</sup> Because of this failure by USACOM to include AMC and TRANSCOM planners early in the planning process, planning factors were not realistic. In fact, according to Lt Col Charles Peterson who helped plan the strategic airlift flow, it took "two weeks" to straighten the airlift out.<sup>71</sup> However, USTRANSCOM did inform USACOM that it would take four days for airlift to transition from OPLAN 2370 to OPLAN 2380.<sup>72</sup> In reality, they got two hours!

The quick change in plans initially caused problems in execution, but these were resolved very quickly. Apparently there were no major communications problems between AMC and JTF 190 deployed to Port-au-Prince. Although the strategic air flow became a bottleneck in the first several days because of the hastily built TPFDL, this was soon refined so that aircraft arrived at

fifteen minute intervals at the height of the deployment.<sup>73</sup> As in DESERT SHIELD and RESTORE HOPE, slot time assignments for airlifters solved the problem of aircraft being "stacked up" after the first few days.<sup>74</sup>

The biggest planning problems for UPHOLD DEMOCRACY seemed to be a recurrence from the three previous strategic airlifts: JOPES and TPFDL updates. According to Colonel James Dickensheets, Director of Current Operations at HQ AMC/TACC, there were not an adequate number of JOPES-trained operators at the deploying units. He also said that the theater CINCs need to train more people in JOPES.<sup>75</sup> Captain Mark Williams, USA, a CALL observer in Haiti, echoed this criticism and said that Fort Drum, the home of the 10th Mountain Division, and JTF 190 at Port-au-Prince both had to be augmented with JOPES operators because there were not enough trained people.<sup>76</sup>

Because of this, TPFDLs could not be inputted into JOPES fast enough.<sup>77</sup> As in DESERT SHIELD and RESTORE HOPE, JOPES during UPHOLD DEMOCRACY was characterized as slow, cumbersome, not-user friendly, and inadequately manned at the deploying units.<sup>78</sup>

Because Haiti was only one thousand miles from the East Coast of CONUS, there was no need for a stage base in the AOR. However, base infrastructure posed some challenges. Communications between the TACC, deployed TALCE, and JTF 190 were described by Captain Williams as "excellent." This allowed problems to be fixed quickly.<sup>79</sup> However, during the first three days there was no unity of command on the airfield, resulting in a cluttered airport which hindered offload operations as helicopters flew "everywhere," severely compromising safety procedures.<sup>80</sup> These problems were finally resolved by the third day.<sup>81</sup>

But once the TALCE arrived, its eight hundred personnel, under the leadership of General Gray, turned the airfield into a well-functioning international airport in a very short time. The deployed air mobility personnel accomplished their mission under living conditions that were worse than those faced by their counterparts in the Gulf and Somalia, even though Haiti was just off the U.S. coast. These conditions included lack of toilets, tents, cots, food and water, and remained problems until ten days into the mission. According to CALL, the poorly planned TPFDL for the permissive entry missed these items.<sup>82</sup>

Four hundred TALCE personnel slept on the floor of the American Airlines Terminal at Port-au-Prince airport, shared three sporadically working latrines, and had no showers for the first week.<sup>83</sup> By the end of that first week, meals and water even had to be rationed<sup>84</sup> The user, the JTF-190, would not allow support to airfield personnel to get ahead of military equipment and troops in the airlift flow.<sup>85</sup> The biggest problem was that there were no portable toilets, and once this was resolved by D+12, there then occurred a shortage of trucks to empty these latrines. These weren't brought in until D+24.<sup>86</sup> The poor living conditions at Port-au-Prince airfield were summarized by TALCE personnel when they named their living area "Hotel Paradise."<sup>87</sup>

Colonel Dickensheets summarized the cause of these horrible living conditions as "users not understanding the needs of airlifters."<sup>88</sup> Lt Col Gelwix said these problems originated in the sudden change from one OPLAN to another, and Major Brett Scharringhausen, the Deputy Chief

of Mission Support and Augmentation Division of the TACC, said that this was simply another example of CINCs not realizing the importance of mission support assets for airlifters.<sup>89</sup>

Another problem which was potentially much more serious was a lack of security for the airfield. People wandered everywhere, and security became a major concern, although there were no incidents with TALCE personnel. Overall, the GRLP worked well, but it was not used during the pre-planning as it was designed for.<sup>90</sup>

Maintenance, supplies, and MHE were not major problems after the first week of UPHOLD DEMOCRACY, although General Gray said that it took a short while to get his NCOs on-line into the Army support system.<sup>91</sup> Also, there was a shortage of MHEs for Army operations but not for airlift operations.<sup>92</sup>

But a serious problem occurred as the October 1994 crisis in Kuwait unfolded. According to Captain Williams who was in Haiti from 25 October to 15 December 1994, "Sustainment bogged down as strategic airlifters were diverted to Southwest Asia in support of VIGILANT WARRIOR. Fortunately, sealift was able to fill this sustainment gap."<sup>93</sup>

UPHOLD DEMOCRACY was a success despite the sudden change in plans initiated by the NCA, with improvements in most areas of planning and basing. However, problems remained that were reminiscent of DESERT SHIELD and RESTORE HOPE. These included problems with JOPES and TPFDDLs, and base operating systems.

### ***VIGILANT WARRIOR***

The first lesson is that we are very pleased with our ability to respond quickly, be flexible, adjust the flow as we thought we needed to, put significant numbers of troops on the ground with their equipment.<sup>94</sup>

Dennis Boxx, Pentagon spokesman

In early October 1994, Saddam Hussein moved 40,000 well-armed troops to within fifteen miles of the Kuwaiti border.<sup>95</sup> To deter a second invasion of Kuwait, President Clinton directed a massive deployment of over 33,000 U.S. troops to the region.<sup>96</sup> As the first C-5s and C-141s began touching down in Kuwait City, Iraq began withdrawing troops from the border, and the President decided not to deploy most of the remaining forces.

While this contingency was considered yet another successful airlift, some problems occurred which were reminiscent of DESERT SHIELD. Unlike DESERT SHIELD, VIGILANT WARRIOR had an existing OPLAN and TFPDL prior to the crisis. However, this OPLAN was designed for a contingency the size of the Gulf War four years earlier, or as one AMC planner stated, for "World War III."<sup>97</sup> Planners had difficulty building a smaller "brush fire" plan of the size VIGILANT WARRIOR became.<sup>98</sup>

Unlike Operation DESERT SHIELD, a TPFDL existed for this contingency, but it was designed to support this "WW III-size" OPLAN. But similar to the previous three strategic airlifts studied, old TPFDL data was in the OPLAN and this required a complete revision prior to execution of the plan.<sup>99</sup> In some cases units listed in the TPFDL had been deactivated, a recurrence from DESERT SHIELD.<sup>100</sup>

Planners from AMC and USTRANSCOM were involved early in the planning process, although there were internal problems within AMC communicating the OPLAN and CONOPs, and airlift operations were hampered by late receipts of the OPORD and CONOPS.<sup>101</sup> This marked improvements from DESERT SHIELD, and UPHOLD DEMOCRACY and reflected the example set during RESTORE HOPE. Planning factors initially were realistic, much more so than during DESERT SHIELD and UPHOLD DEMOCRACY. But as the operation unfolded, these initial estimates became less reliable because, according to Major Diane Byrne, the Chief of Southwest Asia and CONUS Plans for HQ AMC, AMC began running out of aircrews because the reserves had not been mobilized.<sup>102</sup>

Command and control systems worked well for this airlift despite some minor problems. The GDSS was set up in theater on 16 October 94 in only twelve hours and experienced no major problems.<sup>103</sup> But the GDSS was not always updated by stage managers, and subsequently there was missing and late aircrew and mission information.<sup>104</sup> For the first time, the Command and Control Information Processing System (C2IPS) was integrated into tactical data networks.<sup>105</sup> The C2IPS "Provides automated capability to perform command and control functions associated with planning, scheduling, and global execution monitoring of AMC's airlift and air refueling missions."<sup>106</sup> This system is scheduled to replace the GDSS terminals at the wing level by 1996 and improve overall command and control of air mobility assets.

JOPES and timely updating of the TPFDL were still major problems during VIGILANT WARRIOR, showing little progress since DESERT SHIELD/STORM. According to Lieutenant Colonel John Crary, the Chief of Collections Division at the U.S. Army Center For Lessons Learned, there were not enough JOPES-trained operators available at the deploying units, and it took thirty days to get a JOPES team into the Gulf.<sup>107</sup> He also stated that "No one knows how to use JOPES," and "No one wants to take responsibility for it."<sup>108</sup>

Poor JOPES operations hindered efficient updates of the TPFDLs. Because of the rapidly changing situation in Southwest Asia and resulting NCA decisions, last minute changes in the TPFDL became the biggest problem of this airlift. Since anyone can have access to JOPES and because there still is no centralized JOPES control, invalidated requests caused great disruptions in the strategic airflow.<sup>109</sup> For example, invalid TPFDL inputs caused six commercial airlift missions valued at \$1.5 million to be canceled.<sup>110</sup>

Also, TPFDL changes occurred so often, sometimes hourly, that HQ AMC/TACC planners were "somewhat powerless to react to the change in the timely manner that the customer desired."<sup>111</sup>

VIGILANT WARRIOR had fewer problems with basing than with planning, an overall improvement since UPHOLD DEMOCRACY. Unlike DESERT SHIELD, a stage base was

secured in theater, at Dhahran, but because VIGILANT WARRIOR never expanded to its planned size, it never had to be fully utilized.<sup>112</sup>

Overall, base infrastructure was improved since DESERT SHIELD, continuing the general trend from RESTORE HOPE and UPHOLD DEMOCRACY. But some lingering problems remained.

Communication with bases throughout the enroute system was described by AMC and CALL personnel as "excellent."<sup>113</sup> According to the DIRMOBFOR for Vigilant Warrior, Brigadier General Richard C. Marr, "All basic voice communications requirements for the AME [Air Mobility Element] were fulfilled in record time."<sup>114</sup> These included UHF, VHF, HF, DSN, Theater Tactical Telephones, pagers, and land mobile radios.<sup>115</sup> There were no significant problems tracking aircraft throughout the airlift system.

The TALCEs and GRLP worked extremely well during VIGILANT WARRIOR, not only because of further refinement of these concepts and excellent personnel, but also because the existing infrastructure enroute and in theater were well developed. Compared to RESTORE HOPE and UPHOLD DEMOCRACY, the environment in Southwest Asia was better developed.

The TALCEs were deployed to Ft. Stewart, Georgia to deploy the 24th Mechanized Infantry Division; to Ft. Campbell, Kentucky for the 101st Airborne Division (Air Assault); to Moron AB, Spain; to Dhahran; and to Kuwait City.<sup>116</sup> The major component of the GRLP, the AME, made its first "full-up" deployment during this contingency.<sup>117</sup> The AME's mission is to serve as the theater commander's agent for all theater mobility issues while coordinating and monitoring strategic airlift and tanker activities.<sup>118</sup> With its ninety-four personnel during VIGILANT WARRIOR, it became fully integrated with the J-3 Air Operations Center (JAOC).

While the TALCE and AME worked very well, deployed air mobility personnel did have problems with MHE, supply, and BOS, although none of these had a serious impact on the strategic airlift. According to CALL, there was not enough MHE in theater.<sup>119</sup>

Base operating systems were a problem but, according to Major Scharringhausen, it was not as serious as during UPHOLD DEMOCRACY because of the existing infrastructure in the Gulf. A HQ AMC briefing on BOS support during VIGILANT WARRIOR recommended that "Current Air Force policy needs to be reviewed in light of current Global Reach Policy."<sup>120</sup>

Ironically, there were shortages of ground transportation for aircrews at their home bases and at enroute bases, and there were shortages of billeting for aircrew members at Moron AB and Dhahran.<sup>121</sup> At Rota Naval Air Station (NAS), C-5 airflow overtaxed the truck refueling capability, and at Dhahran departures were delayed because 50 percent of civilian contract fuel trucks serviced Saudi civilian airliners before AMC aircraft.<sup>122</sup> There were no other serious logistical shortages during VIGILANT WARRIOR for the strategic airlift.

Before it got fully started, VIGILANT WARRIOR had succeeded in deterring a possible Iraqi attack on Kuwait. By 19 October 1994, 7,300 soldiers and over one hundred combat aircraft had been deployed to the Gulf.<sup>123</sup> VIGILANT WARRIOR was another airlift success, clearly showing that AMC and USTRANSCOM had made substantial progress in eliminating

inefficiencies of planning and basing. But continued noncooperation by the users, especially with JOPES, TPFDLs, and BOS, limited even greater improvements.

## Summary

We at AMC react faster than customers can get ready.<sup>124</sup>

Major Diane Byrne, HQ AMC/DOXP interview

Clearly, then, the inefficiencies in strategic airlift planning and basing have improved since Operation DESERT SHIELD, but problems remain, problems mainly attributable to airlift customers. USTRANSCOM and AMC have made major efforts to improve strategic airlift efficiency, but unless their customers, primarily the supported CINCs, other Air Force organizations, the other services, and increasingly other nations follow the advice of the air mobility experts at Scott AFB, further improvements are doubtful.

This problem is illustrated in the concept of customer service. While airlift customers demand sufficient and rapid air transportation, they are not willing to do their part by following the recommendations of USTRANSCOM and AMC. Strategic airlift users must finally understand that if they want to get their forces to a crisis in adequate numbers on time, they must do the following:

1. Maintain applicable OPLANS with accurate TPFDLs, and in the event of a NOPLAN situation, have "fill in the blank" plans to expedite deliberate planning.
2. Get air mobility planners involved early in the planning process and use their planning factors.
3. Take responsibility for JOPES by training an adequate number of operators or replace JOPES with a more responsive system.
4. Provide deployed TALCEs and other air mobility personnel with the BOS they need.

One final recommendation is in order. It is absolutely imperative that strategic airlift efficiency continue to improve because of the increasing importance of strategic mobility in the post-Cold War era. This sea change is so profound that many do not yet fully comprehend its significance. Colonel Dennis M. Drew, USAF (Ret), a former dean of the School of Advanced Air Power Studies at Maxwell AFB summarized this sea change in late 1994:

The complexities of the new world order already are placing a premium on airlift, which long has lived in the shadows of its more glamorous bomber and fighter forces. But since February 1991 there has been little air-to-air combat and few bombs dropped in anger. Even with the movement of so many fighters and bombers to Iraq, the role of airlift has moved into the spotlight and likely will stay there.<sup>125</sup>

With the United States Air Force transitioning into its third era marked by the preeminence of air mobility assets, change within the service will occur slowly. Why? Because change normally comes slow to most large organizations. The early years of the Army Air Corps and later independent U.S. Air Force emphasized the strategic bomber and pursued World War II and most of the Cold War accordingly. It then transitioned into a focus on fighter operations during the Vietnam War which culminated in the brilliant victory of DESERT STORM. Now, however, the era belongs to airmobility.

The key, then is for the U.S. Air Force and its customers to accept this sea change and continue to improve its strategic airlift efficiency.

Success in the next crisis may depend on it.

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