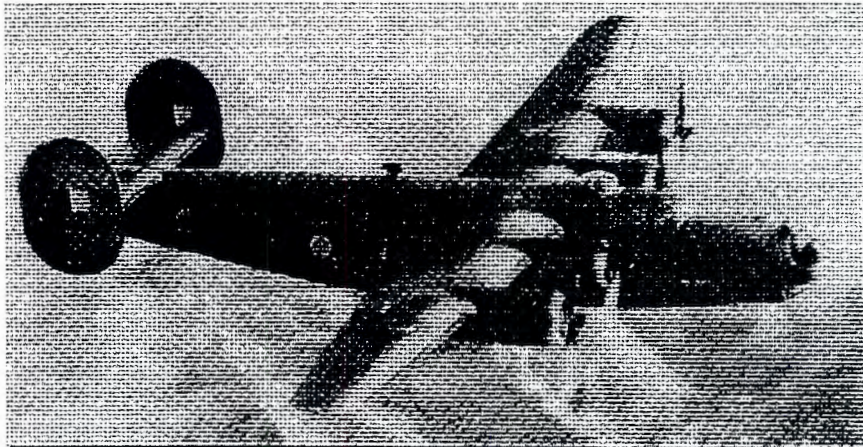


31 Squadron lost eight aircraft during the sorties from 13 to 17 August 1944. (Table 10) 178 Squadron and Polish Special Duties Flight 1586 lost four aircraft each, and 148 Squadron lost two aircraft. (Table 10) This represented an enormous loss for the squadrons involved. Air Marshall Sir John Slessor reacted by ordering the Warsaw operations to be called off, but subsequently reversed.<sup>23</sup>

**Table 10: AIRCRAFT LOST DURING FLIGHTS SINCE THE START OF THE OPERATIONS 13-17 AUGUST 1944**



| Squadron | Total number of aircraft | Aircraft lost |
|----------|--------------------------|---------------|
| 178      | 21                       | 4             |
| 31       | 23                       | 8             |
| 148      | 13                       | 2             |
| 1586 PF  | 9                        | 4             |
| Total    | 66                       | 18            |

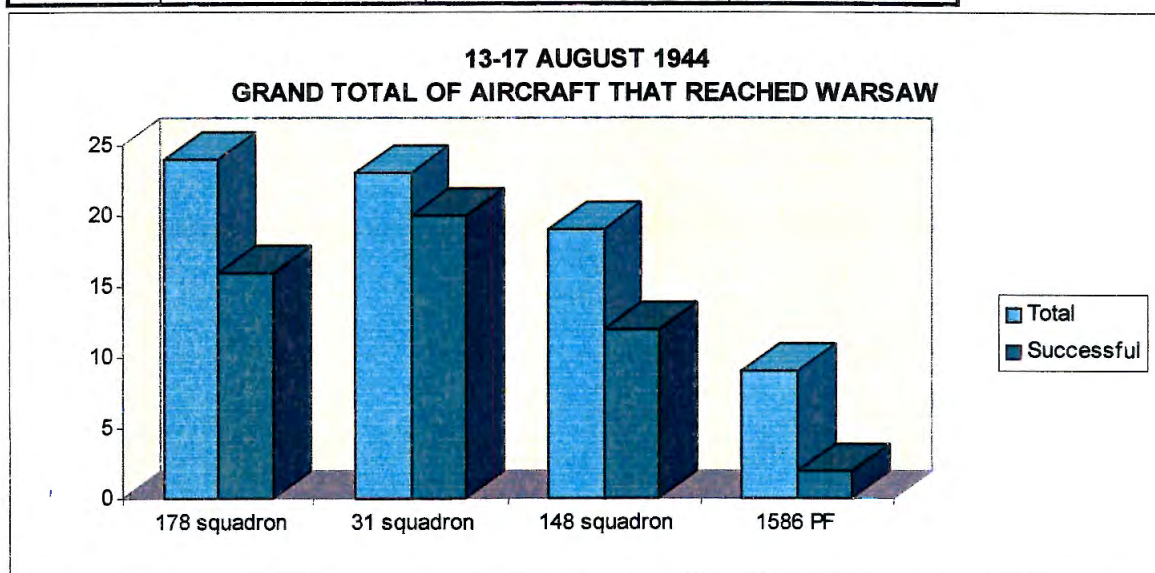
From 13-17 August, the Allied forces undertook 75 sorties to Warsaw. (Table 11) Only 50 of the 75 aircraft participating succeeded in reaching Warsaw. This represents a success rate of 67%. 31 Squadron SAAF undertook a total of 23 flights. Twenty of the 23 aircraft succeeded in reaching Warsaw. (Table 11) This represents an 86,9% success rate for the squadron. This also represents a 40% contribution to the total number of aircraft that reached Warsaw. 178

<sup>23</sup> However, his decision was heavily criticised and he was eventually forced to retract his earlier decision; J. T. Durrant, Personal interview, Johannesburg, 14 June 1983.

This represents a success rate of 66,6%. This squadron contributed 32% of the total number of aircraft that reached Warsaw. 148 Squadron RAF undertook a total of 19 flights (Table 11). Twelve of their 19 aircraft succeeded in reaching Warsaw. This represents a success rate of 63%. In the total effort this represents a 30% contribution. Polish Special Duties Flight 1586 had nine aircraft that participated but only two succeeded in reaching Warsaw (Table 11). This represented a success rate of 22%. Their contribution to the total of aircraft reaching Warsaw is only 4%.

**Table 11: NUMBER OF AIRCRAFT THAT REACHED WARSAW SINCE THE START OF THE OPERATIONS ON 13 AUGUST 1944**

| Squadron | Number of aircraft that participated | Number of aircraft that reached Warsaw | Success rate in percentage |
|----------|--------------------------------------|----------------------------------------|----------------------------|
| 178      | 24                                   | 16                                     | 66,6%                      |
| 31       | 23                                   | 20                                     | 86,9%                      |
| 148      | 19                                   | 12                                     | 63,0%                      |
| 1586 PF  | 9                                    | 2                                      | 22,0%                      |
| Total    | 75                                   | 50                                     | 67,0%                      |

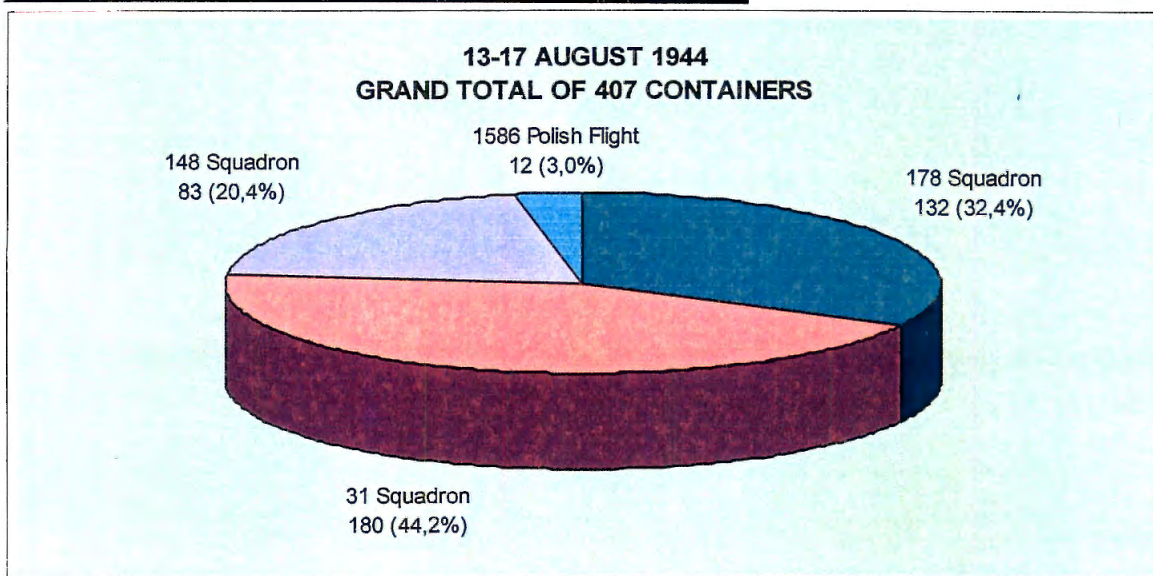


During the period 13 to 17 August, a total of 407 containers was dropped on Warsaw (Table 12). 31 Squadron dropped 180 containers, 178 Squadron dropped 132 containers and 148 Squadron dropped 83 containers whilst Polish Special Duties Flight 1586 dropped a total of 12 containers. Once more the South Africans achieved the best results. They dropped 44,2% of the total number of containers, 178 Squadron dropped 32,4%, 148 Squadron dropped

20,4% and Polish Special Duties Flight 1586 dropped 3,0% of the total number of containers (Table 12).

**Table 12: GRAND TOTAL OF CONTAINERS DROPPED ON WARSAW SINCE 13 AUGUST 1944**

| Squadron | Number of containers dropped | Percentage of containers dropped |
|----------|------------------------------|----------------------------------|
| 178      | 132                          | 32,4%                            |
| 31       | 180                          | 44,2%                            |
| 148      | 83                           | 20,4%                            |
| 1586 PF  | 12                           | 3,0%                             |
| Total    | 407                          | 100%                             |



31 Squadron was withdrawn from the Warsaw operations after the flights of 16-17 August, and they were then employed on tactical objectives. They were operating in Northern Italy where targets were usually planned with the aim of disrupting enemy communication lines. Due to the many losses of aircraft during the Warsaw flights, (Table 10) they initially only had two Liberators available for these operations. Later the number increased again to six.

## **10.7 THE FLIGHTS OF 10-11 SEPTEMBER**

Airlift. Aircraft were now using a new modified parachute which had been fitted with a new type of delay fuse. This delaying mechanism would prevent the parachutes from opening immediately after the containers were dropped from the aircraft.<sup>24</sup>

Four crews of 148 Squadron RAF were detailed for operations to Warsaw.<sup>25</sup> (Table 14) The one, Halifax JP245 P, took off from Brindisi but due to technical problems and the compass of the aircraft being unserviceable, the pilot, decided to return to base. Two aircraft, Halifax JP246 B and Halifax JD319 G, succeeded in reaching Warsaw and dropped six containers each on the target area. Both aircraft returned home safely. Halifax BB422 T and its crew members did not return to base and were presumed lost.<sup>26</sup>

Polish Special Duties Flight 1586 also flew sorties to Warsaw on the night of 10-11 September. These flights turned out to be fatal since only two of the five aircraft got home safely. (Table 14) They did not drop any containers.

The two South African squadrons involved succeeded in dropping 48 containers which represented 80% of the containers dropped. (Table 13)

The SAAF once more participated in sorties to Warsaw on 10-11 September. Three Liberators reached Warsaw but only two of these aircraft succeeded in dropping supplies to the partisans.<sup>27</sup> (Table 13) All 12 metal containers of Liberator KG875 D were successfully dropped on the identified drop-zones. Liberator KG874 J also dropped its containers successfully on the target area in Warsaw. Liberator KH104 F experienced extremely dense cloud formations over Warsaw and, because the supply strip could not be seen at all, the aircraft was forced to return. The supplies were later dropped on a landing strip in Yugoslavia. The crew could only hope that the Polish partisans would find them. During these flights, 31 Squadron dropped a total of 24 containers on the target area.

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24 These delaying devices were discussed in chapter 8 of this thesis.

25 Details of these flights are discussed in chapter 8 of this thesis.

26 Public Record Office, (London), Air 27, Piece 996, p.1.

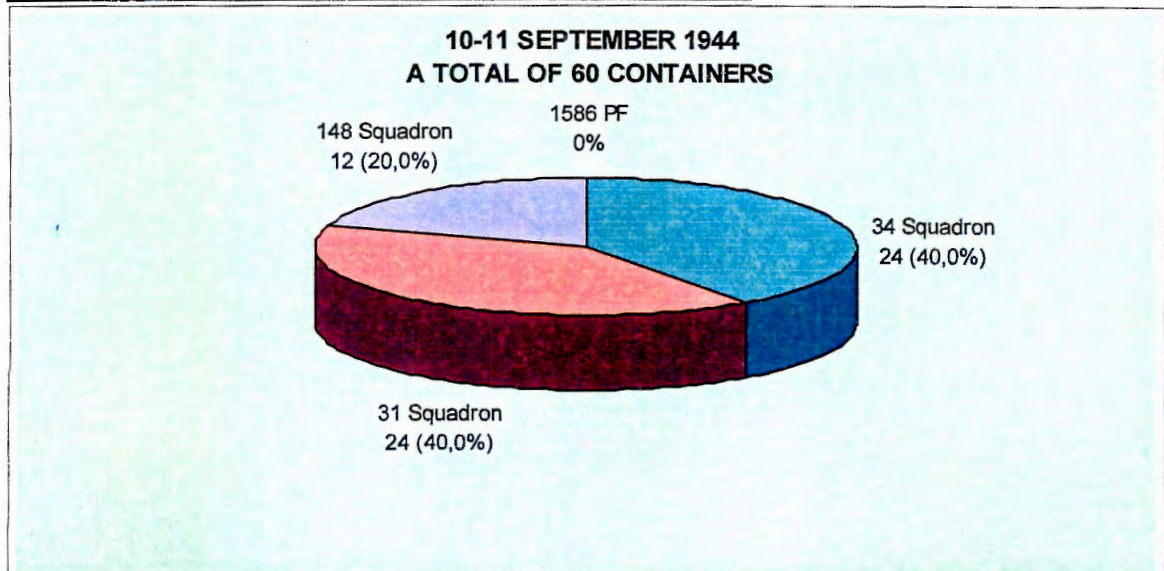
27 Details of these flights are discussed in chapter 8 of this thesis.

them. During these flights, 31 Squadron dropped a total of 24 containers on the target area.

Three Liberators of 34 Squadron participated in the sorties on 10-11 September (Table 14). Two aircraft succeeded in delivering their supplies.<sup>28</sup> Liberator EW195 A dropped its supplies on Warsaw but the crew could not establish how many supplies landed in the right zones. Liberator KG150 R also experienced extremely dense cloud banks over Warsaw. The containers were dropped but they, also, could not tell whether the containers landed on the right zones. With cloud banks like these, it was just impossible to identify the accurate positions of the dropping zones. Liberator EW198 C crashed during its flight to Warsaw. Two crew members survived and were taken prisoner of war. Unfortunately the other five crew members were killed. During these flights, 31 Squadron and 34 Squadron dropped 24 containers each (Table 13).

**Table 13: TOTAL NUMBER OF CONTAINERS DROPPED DURING FLIGHTS OF 10-11 SEPTEMBER**

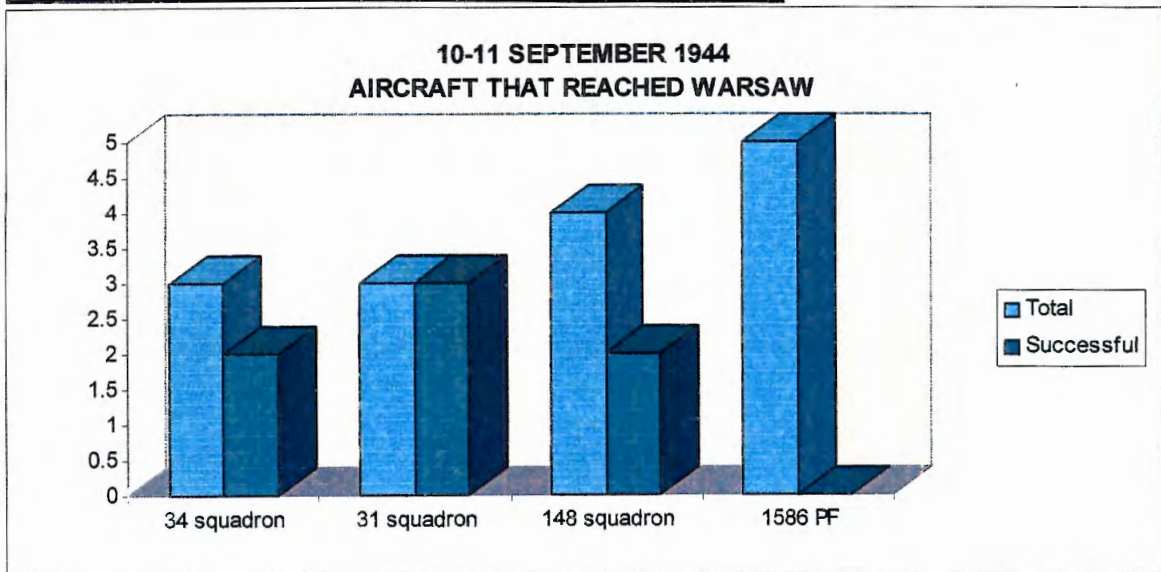
| Squadron | Number of containers dropped | Percentage of containers dropped |
|----------|------------------------------|----------------------------------|
| 34       | 24                           | 40,0%                            |
| 31       | 24                           | 40,0%                            |
| 148      | 12                           | 20,0%                            |
| Total    | 60                           | 100%                             |



A total number of 16 aircraft participated in the flights on 10-11 September. Only seven aircraft succeeded in reaching Warsaw. 31 Squadron was the only squadron that had a 100% success (Table 14).

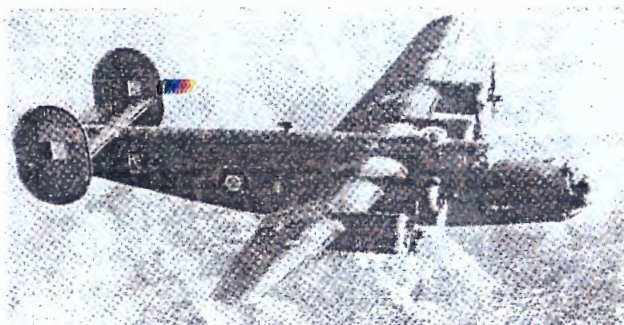
**Table 14: NUMBER OF AIRCRAFT THAT REACHED WARSAW DURING THE FLIGHTS ON 10-11 SEPTEMBER**

| Squadron | Number of aircraft that participated | Number of aircraft that reached Warsaw |
|----------|--------------------------------------|----------------------------------------|
| 34       | 3                                    | 2                                      |
| 31       | 4                                    | 3                                      |
| 148      | 4                                    | 2                                      |
| 1586PF   | 5                                    | 0                                      |
| Total    | 16                                   | 7                                      |

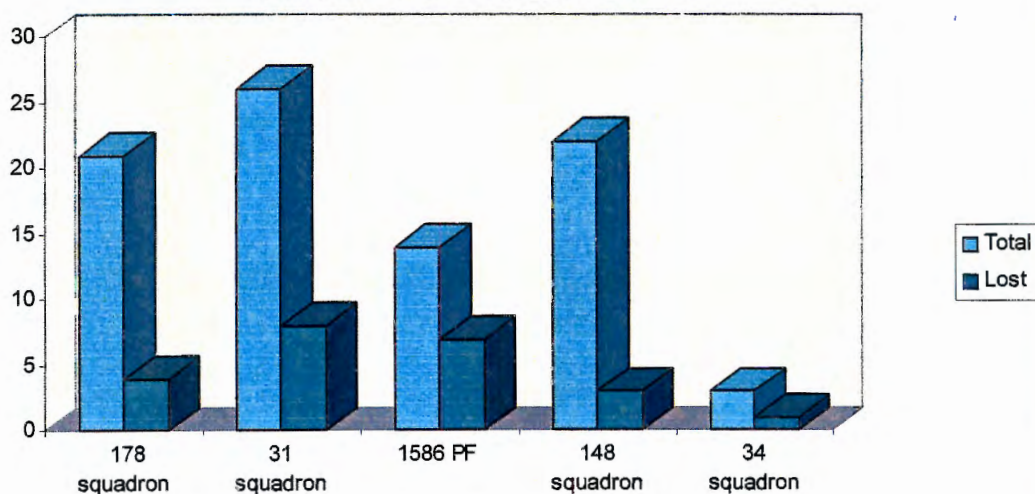


The poor results of the sorties of 10-11 September again underlined the impracticability of the Warsaw flights. Since the beginning of the Warsaw Airlift, 23 aircraft had been lost (Table 15).

**Table 15: AIRCRAFT LOST SINCE THE START OF THE WARSAW AIRLIFT ON 13 AUGUST**



**13 AUGUST - 18 SEPTEMBER 1944  
AIRCRAFT LOST DURING FLIGHTS**



| Squadron | Number of aircraft that participated | Number of aircraft lost | Percentage of aircraft lost |
|----------|--------------------------------------|-------------------------|-----------------------------|
| 178      | 21                                   | 4                       | 19,0%                       |
| 31       | 26                                   | 8                       | 30,8%                       |
| 148      | 22                                   | 3                       | 13,6%                       |
| 1586 PF  | 14                                   | 7                       | 50,0%                       |
| 34       | 3                                    | 1                       | 33,3%                       |
| Total    | 86                                   | 23                      | 26,7%                       |

The approaching winter, with deteriorating weather conditions, made further flights even more difficult. By now it became obvious that only a major mission from bases in Britain would achieve the necessary success in providing the partisans with sufficient supplies.

But from Warsaw telegrams did not stop. The partisans were pleading for more and more sorties to be undertaken. By now help from the Allies had become even more crucial and meant the difference between life or death for the partisans in Warsaw.

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## **10.8 FLIGHT ON 18 SEPTEMBER BY 8th UNITED STATES AIR FORCE**

On 18 September, after long drawn out negotiations with the Russians, three American combat wings of the 8th USAF were dispatched from England to drop supplies to the partisans in Warsaw.<sup>29</sup>

The aircraft they used were 110 B-17 long-range bombers, carrying more than 126 100 kilogram(130 tons) of supplies and ammunition. During this operation, 64 P-51 fighter aircraft escorted these bombers to protect them against possible attacks from German fighters.<sup>30</sup> The units involved were the 95th A Group, B Group and C Group of 13 A Combat Wing and 100th Group of 13 C Combat Wing. At Warsaw, moderate and inaccurate flak was experienced over the target area. All the containers<sup>31</sup> were dropped from an altitude of more than 4 000 metres. Although most of the crews claimed that they could not tell where the supplies landed, it was estimated that about 50% of the containers landed in the city of Warsaw. The reports from Warsaw were erratic. At first, reports described the results as excellent, but later it was claimed that only 288 containers were received by the partisans. Later, other reports stated that 640 containers were received.

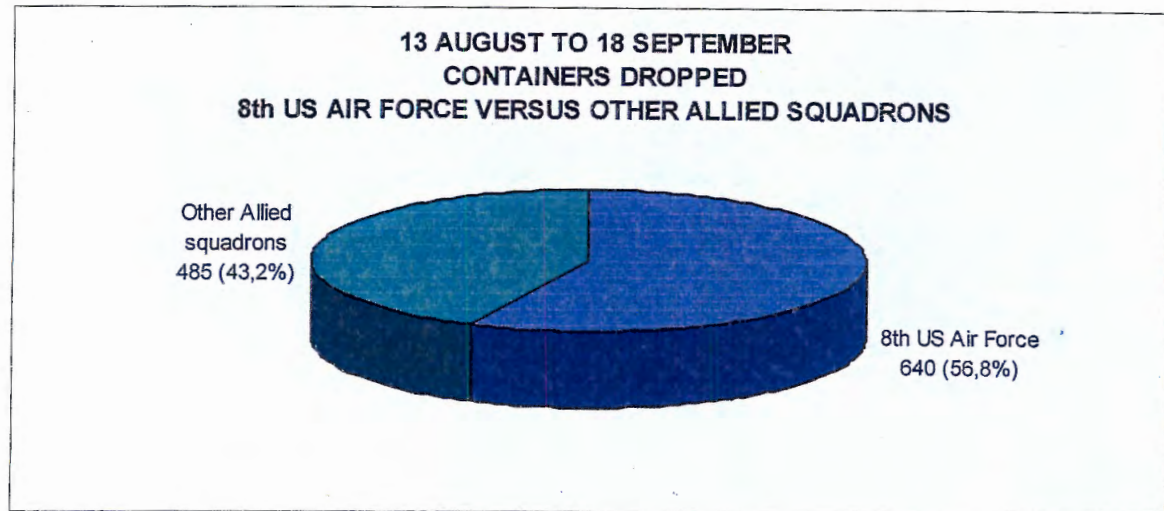
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29 Details of these flights are discussed in chapter 9 of this thesis.

30 The Allied squadrons operating from Italy did not have any fighter aircraft at their disposal to protect them from enemy fighters.

31 The contents of the containers are clearly described in chapter 9 of this thesis.

**Table 16: A COMPARISON BETWEEN THE NUMBER OF CONTAINERS DROPPED BY THE ALLIED SQUADRONS THAT OPERATED FROM ITALY, AND THE NUMBER OF CONTAINERS DROPPED BY THE AMERICANS ON 18 SEPTEMBER**



The high altitude at which the aircraft flew when the containers were dropped was given as the main reason for the low success rate. By reducing the dropping altitude, accuracy could have been increased but under the prevailing circumstances it was not recommended by the American Flight Commanders.<sup>32</sup>

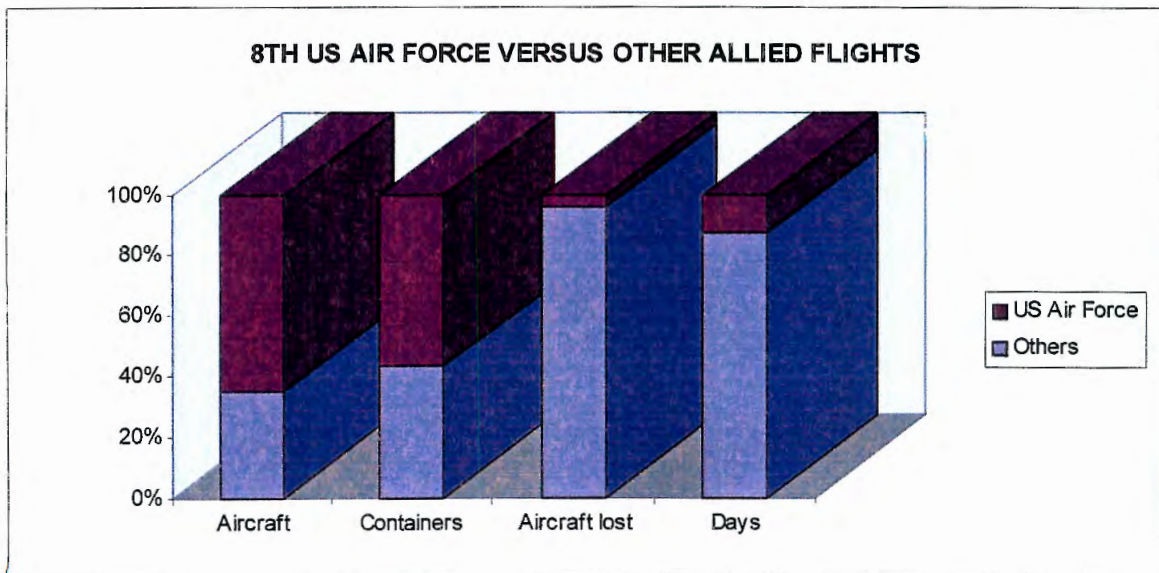
Apart from the fact that the supplies received by the Warsaw partisans was said to be making the difference between survival or defeat for the Poles in Warsaw, the most important contribution the Americans made was the fact that their effort raised a terrific enthusiasm among the populace in Warsaw. The morale and spirit of the people improved immensely. This effort was seen by the people as the first of many supply flights to come. Unfortunately, the cost of the operation as well as the possibility of losses during another attempt, compelled the American War Department to advise against any further efforts to drop supplies. General Anderson also suggested that these operations be discouraged in the highest government circles. Russia was not at all in favour of a repetition of such a mission.

<sup>32</sup> Most of the Allied aircraft dropped the containers from an altitude of about 200 to 300 metres.

The Americans successfully dropped a total of 640 containers (Table 16). This represents a success rate of only 50%. During seven operations from 13 August to 22 September, the allied squadrons, operating from Italy, dropped a total of 485 containers (Tables 16 and 17). In total the Allied squadrons flew seven operations over seven days from Italy. Ninety-nine aircraft participated, although only 58 reached Warsaw (Table 21). The Americans only lost one aircraft; the others lost 23 aircraft (Table 17). In chapter 12 further discussion will follow regarding the comparison between the single mission by the Americans and those of the other Allied squadrons that flew from Italy.

**Table 17: A COMPARISON BETWEEN THE ALLIED SQUADRONS THAT OPERATED FROM ITALY AND THE SINGLE DAY MISSION BY THE AMERICANS**

|                        | Aircraft that reached Warsaw | Containers supplied to partisans | Aircraft lost | Number of days flown |
|------------------------|------------------------------|----------------------------------|---------------|----------------------|
| 8th USAF               | 110                          | 640                              | 1             | 1                    |
| Other Allied squadrons | 59                           | 485                              | 23            | 7                    |



On the night of 18-19 September, five Halifaxes of 148 Squadron RAF flew sorties to Warsaw but only one aircraft successfully dropped its containers on Warsaw. This represents a success rate of only 20%. By now it had become very difficult for the aircrews to obtain the pinpoints in Warsaw. The deteriorating weather conditions would make further flights even more difficult.

On 21 September, the Allies were informed that no further attempts would be made by the Americans, and therefore orders were once again issued to Allied

of the SAAF, two from 31 Squadron and three from 34 Squadron and five Halifaxes of 148 Squadron RAF were detailed for these further sorties.

## **10.9 THE FLIGHTS OF 21-22 SEPTEMBER**

Both Liberators of 31 Squadron, Liberator KG874 J and Liberator KG967 Q, left from Celone. Liberator KG874 J experienced fairly poor weather conditions on its way to Warsaw but when they arrived at Warsaw, good weather conditions prevailed. Although the dropping zones were poorly demarcated, the pilot succeeded in dropping all the containers on the correct area. They returned home safely. Liberator KG967 Q had little difficulty finding the supply strips in Warsaw and dropped all the containers successfully. Although they were followed by an unidentified aircraft for nearly ten minutes on their way back, they succeeded in returning home without any incident.<sup>33</sup>

The three Liberators of 34 Squadron SAAF that participated in the flights to Warsaw were Liberators KG155 Q, EW207 and EW192 G.<sup>34</sup> (Table 19) Although all three aircraft succeeded in reaching Warsaw, only one Liberator could drop 12 containers. (Table 18) Twenty-seven containers were brought back to base. After two full circling movements, the crew of Liberator KG155 Q could still not identify the indicating lights of the drop-zones because a variety of small lights made it impossible for them to distinguish the right ones from the others. Liberator EW207 K could also not identify the drop-zones because of the large number of lights and flares over the city. In the vicinity of the Danube, they were caught in the beams of a searchlight and were extremely lucky to escape without being hit. Although the crew of Liberator EW192 G clearly identified the lights in the woods on reaching Warsaw, only nine containers could be delivered. Three of the containers were snagged by the hatches on the aircraft and could not be dropped.

Five Halifaxes of 148 Squadron RAF took part in the sorties to Warsaw. (Table 19) Only three of the five reached Warsaw. One aircraft dropped its containers on

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33 Details of these flights are discussed in chapter 9 of this thesis.

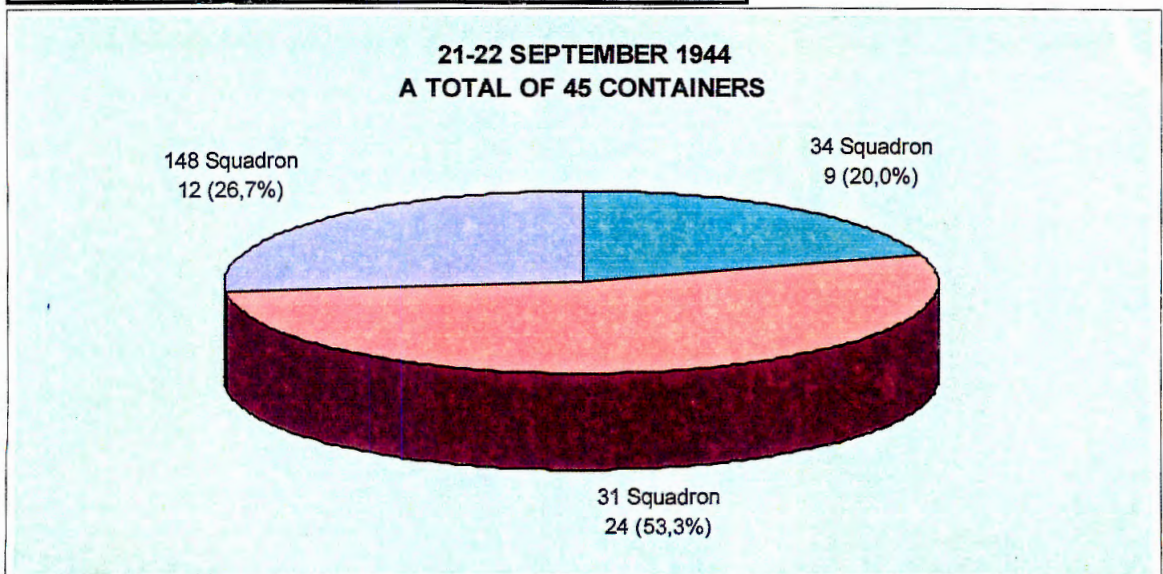
34 Details of these flights are discussed in chapter 9 of this thesis.

Five Halifaxes of 148 Squadron RAF took part in the sorties to Warsaw (Table 19). Only three of the five reached Warsaw. One aircraft dropped its containers on the target area but the other two responded on the wrong signals and their supplies fell into enemy hands.

On the night of 21 September seven aircraft reached Warsaw (Table 19). Five crews of the SAAF supplied 33 containers of the 45 containers dropped (Table 18). This represents a success rate of 73,3% for the South Africans. The 12 containers dropped by 148 Squadron RAF represents a success rate of 26,6% (Table 18). Once again the South Africans were 46,7% more successful than their counterparts.

**Table 18: NUMBER OF CONTAINERS DROPPED DURING THE FLIGHTS ON 21-22 SEPTEMBER**

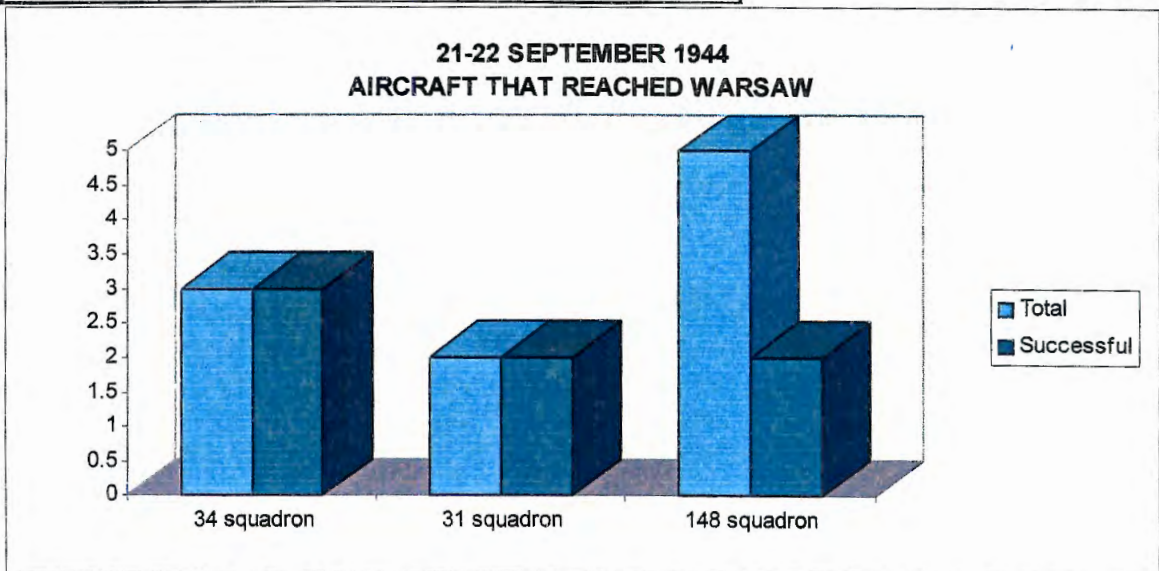
| Squadron | Number of containers dropped | Percentage of containers dropped |
|----------|------------------------------|----------------------------------|
| 34       | 9                            | 20,0%                            |
| 31       | 24                           | 53,3%                            |
| 148      | 12                           | 26,7%                            |
| Total    | 45                           | 100%                             |



A total number of ten aircraft participated in the flights on 21-22 September, but only seven succeeded in reaching Warsaw (Table 19). Both 31 Squadron and 34 Squadron had 100% success since all their aircraft reached Warsaw.

**Table 19: NUMBER OF AIRCRAFT THAT REACHED WARSAW DURING THE FLIGHTS ON 21-22 SEPTEMBER**

| Squadron | Number of aircraft that participated | Number of aircraft that reached Warsaw |
|----------|--------------------------------------|----------------------------------------|
| 34       | 3                                    | 3                                      |
| 31       | 2                                    | 2                                      |
| 148      | 5                                    | 2                                      |
| Total    | 10                                   | 7                                      |



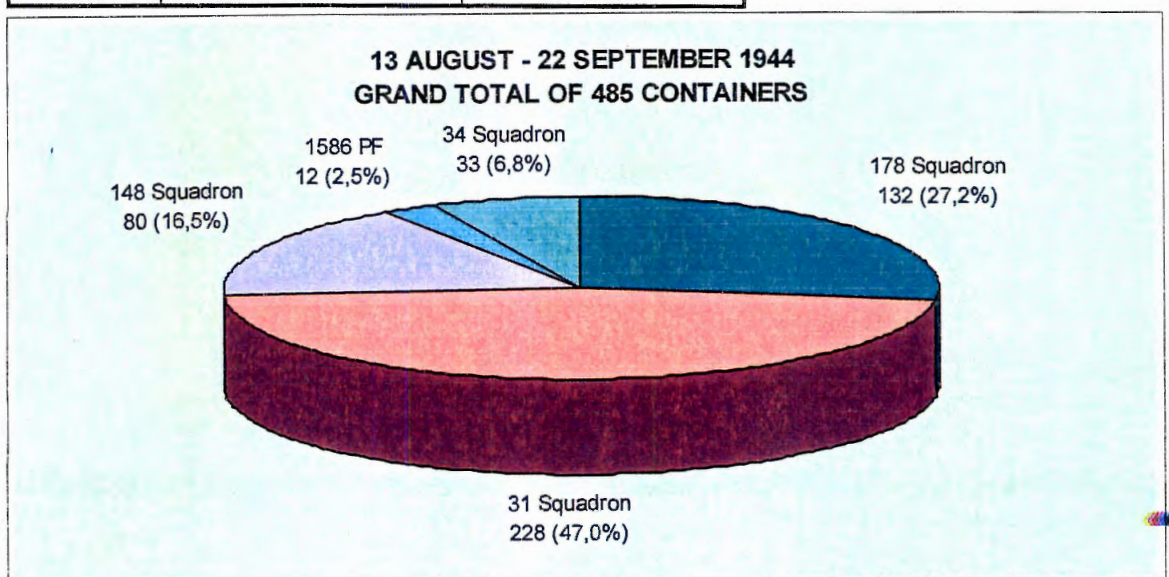
The flights of 21-22 September represented the last sorties to be flown. Lack of success was not the only reason for the cessation of sorties after 21 September; the area held by the insurgents was getting smaller and bad weather conditions also contributed. By this time, winter was approaching fast and the weather conditions in Europe were really deteriorating rapidly. The weather would therefore contribute to a great extent to making flying conditions for the pilots and their crews extremely difficult.

## 10.10 CONCLUSION

The statistical evidence provided in this chapter confirms once more that the SAAF did indeed play a major role in the supply flights to Warsaw. The fact that, except for the flights on 13-14 August, they succeeded in obtaining the highest success rate throughout prove their major contribution. Of the Allied squadrons which operated from Italy they succeeded in dropping 261 of the total of 485 containers (Table 20). This represents a percentage of 54%. 31 Squadron dropped 228 containers, 178 Squadron dropped 132 containers, 148 Squadron dropped 80 containers, 34 Squadron dropped 33 containers and Polish Special Duties Flight 1586 dropped 12 containers (Table 20). It must be taken into consideration that 34 Squadron only participated in the last sorties.

**Table 20: GRAND TOTAL OF CONTAINERS DROPPED ON WARSAW SINCE THE FIRST OPERATIONS ON 13 AUGUST TO THE LAST OPERATION ON 22 SEPTEMBER 1944**

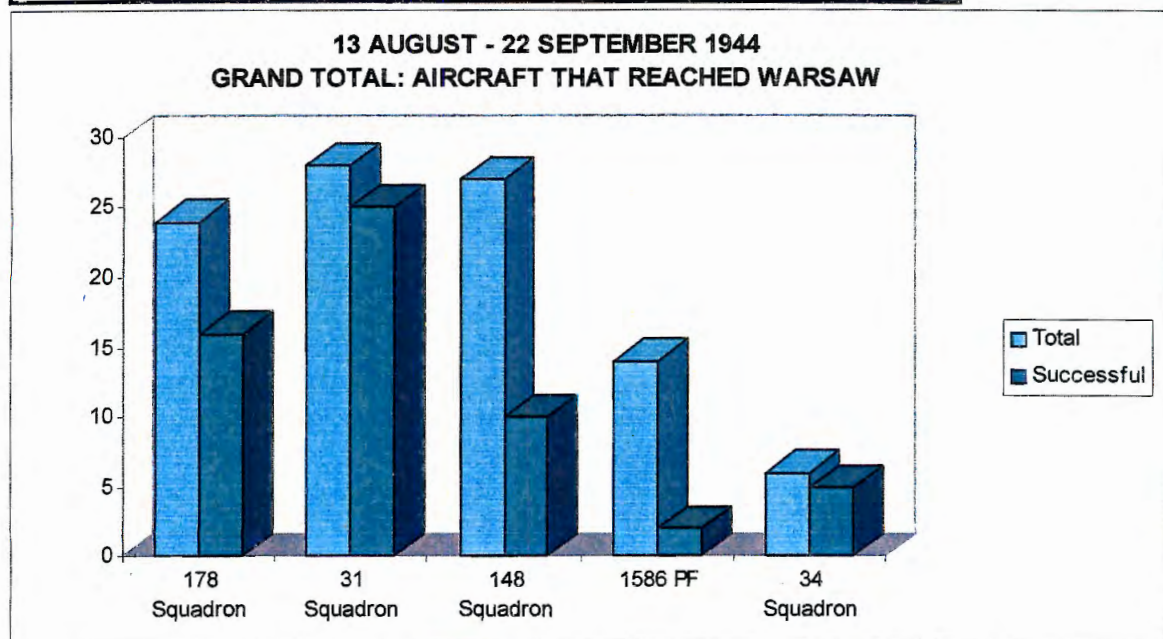
| Squadron | Number of containers dropped | Percentage of containers dropped |
|----------|------------------------------|----------------------------------|
| 178      | 132                          | 27,2%                            |
| 31       | 228                          | 47,0%                            |
| 148      | 80                           | 16,5%                            |
| 34       | 33                           | 6,8%                             |
| 1586 PF  | 12                           | 2,5%                             |
| Total    | 485                          | 100%                             |



In total, 99 aircraft participated in the flights from Italy (Table 21). Only 68 aircraft succeeded in reaching Warsaw. 31 Squadron did especially well because 25 Liberators of the 28 Liberators detailed for the flights, succeeded in reaching Warsaw. This represents a success rate of 89,2%. Against this, 178 Squadron had a success rate of 67%, 148 Squadron a success rate of only 37% and Polish Special Duties Flight 1586 a success rate of only 14% (Table 21). 34 Squadron only took part in the last sorties but managed to obtain a success rate of 83,3%. Five of the six Liberators that participated reached Warsaw (Table 21).

**Table 21: GRAND TOTAL OF AIRCRAFT THAT REACHED WARSAW SINCE THE FIRST FLIGHTS ON 13 AUGUST TO THE LAST FLIGHTS ON 22 SEPTEMBER 1944**

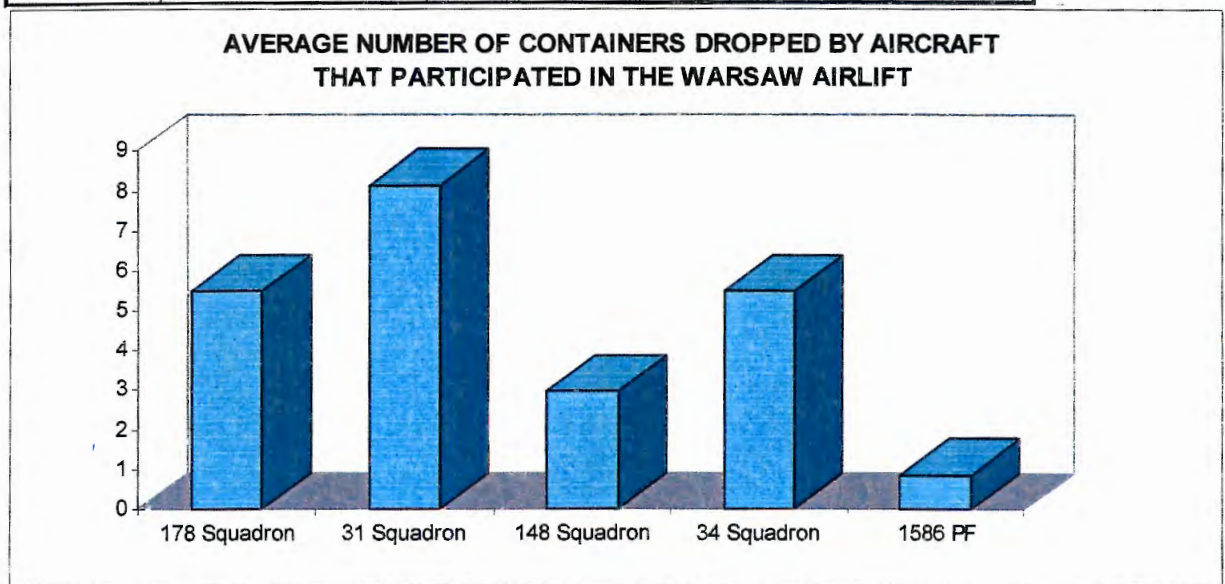
| Squadron | Number of aircraft that participated | Number of aircraft that reached Warsaw | Success rate in percentage |
|----------|--------------------------------------|----------------------------------------|----------------------------|
| 178      | 24                                   | 16                                     | 66,7%                      |
| 31       | 28                                   | 25                                     | 89,3%                      |
| 148      | 27                                   | 10                                     | 37,0%                      |
| 1586 PF  | 14                                   | 2                                      | 14,3%                      |
| 34       | 6                                    | 5                                      | 83,3%                      |
| Total    | 99                                   | 58                                     | 58,6%                      |



An analysis of the number of containers successfully dropped compared to the number of flights undertaken to Warsaw will indicate clearly that the South African squadrons achieved a much higher success rate.(Table 22)

**Table 22: THE SUCCESS RATE OF CONTAINERS DROPPED BY EACH SQUADRON DURING THE WARSAW AIRLIFT**

| Squadron | Number of containers dropped | Number of aircraft that participated in the flights to Warsaw | Average number of containers dropped by each aircraft |
|----------|------------------------------|---------------------------------------------------------------|-------------------------------------------------------|
| 178      | 132                          | 24                                                            | 5.5                                                   |
| 31       | 228                          | 28                                                            | 8.14                                                  |
| 148      | 80                           | 27                                                            | 2.96                                                  |
| 34       | 33                           | 6                                                             | 5.5                                                   |
| 1586 PF  | 12                           | 14                                                            | 0.86                                                  |
| Total    | 485                          | 99                                                            | 4.9                                                   |



This statistical information gives ample evidence of the sound training, courage and perseverance of the South Africans involved in these taxing flights. Further conclusions about the role of the SAAF will be made in chapter 12.