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Sr. col Lü Zhihong, Associate Professor of the Academic Department for Operational Studies,

platoon commander, company commander, training staff officer, section chief for reconnaissance, deputy chief of staff, etc;

undergone junior, intermediate and higher command college training; won several awards and medals;

is teaching and researching in basic theories of Campaigns;

major published works include “General Principles on Campaigns” “Air Defense Operations in Joint Campaigns”, etc.




利比亚战争及作战特点分析

Analysis of the Libya War and the operation characteristics




吕志洪
Lü Zhihong



利比亚战争，自**2011年3月19日**至**10月31日**结束，历时**7个月零12天**。

The Libya War commenced on March 19th 2011 and terminated on October 31st, which lasted for a duration of 7 months and 12 days.





法、英、美等**17**个国家，以落实联合国决议为名，对利比亚进行7个月的持续空袭，共动用卫星约**90**颗，飞机约**200**架、舰艇**38**艘，出动了飞机约**2.6**万架次，打击目标近**6000**个，支持利比亚反政府武装推翻卡扎菲政权。

In the name of implementing the UN resolutions, total 17 countries including France, Britain and the United States carried out continuous strikes on Libya for more than 7 months. They employed a total of about 90 satellites, about 200 aircrafts and 38 fleets and ships during the operation. They conducted about 26,000 sorties, attacked nearly 6,000 targets and supported Libyan rebels (anti-government forces) to change the Gaddafi regime.





一、战争背景**First, the background of war**

二、简要经过**Second, brief introduction of the Libya War process**

三、主要特点**Third, operational characteristics**

四、几点思考**Four, some considerations and reflections about Libya War.**

一、战争背景

First, the background of war

2011年2月16日，利比亚第二大城市班加西爆发示威抗议活动，要求国内进行政治、经济改革以及卡扎菲下台。抗议活动迅速蔓延到首都的黎波里及多个城市。

On February 16th, 2011, outbreak of protest activities happened in Libya's second largest city—Benghazi. The protesting people demand domestic political and economic reforms and also they insisted Gaddafi to step down. The protests quickly spread to the Libya capital —Tripoli and other cities.



一、战争背景

First, the background of war

卡扎菲明确拒绝反对派的要求，并采取强硬措施对付示威活动，导致大量人员伤亡。

Gaddafi clearly rejected the opposition demands and took strong measures to deal with the demonstrations, which resulted in a large number of casualties.

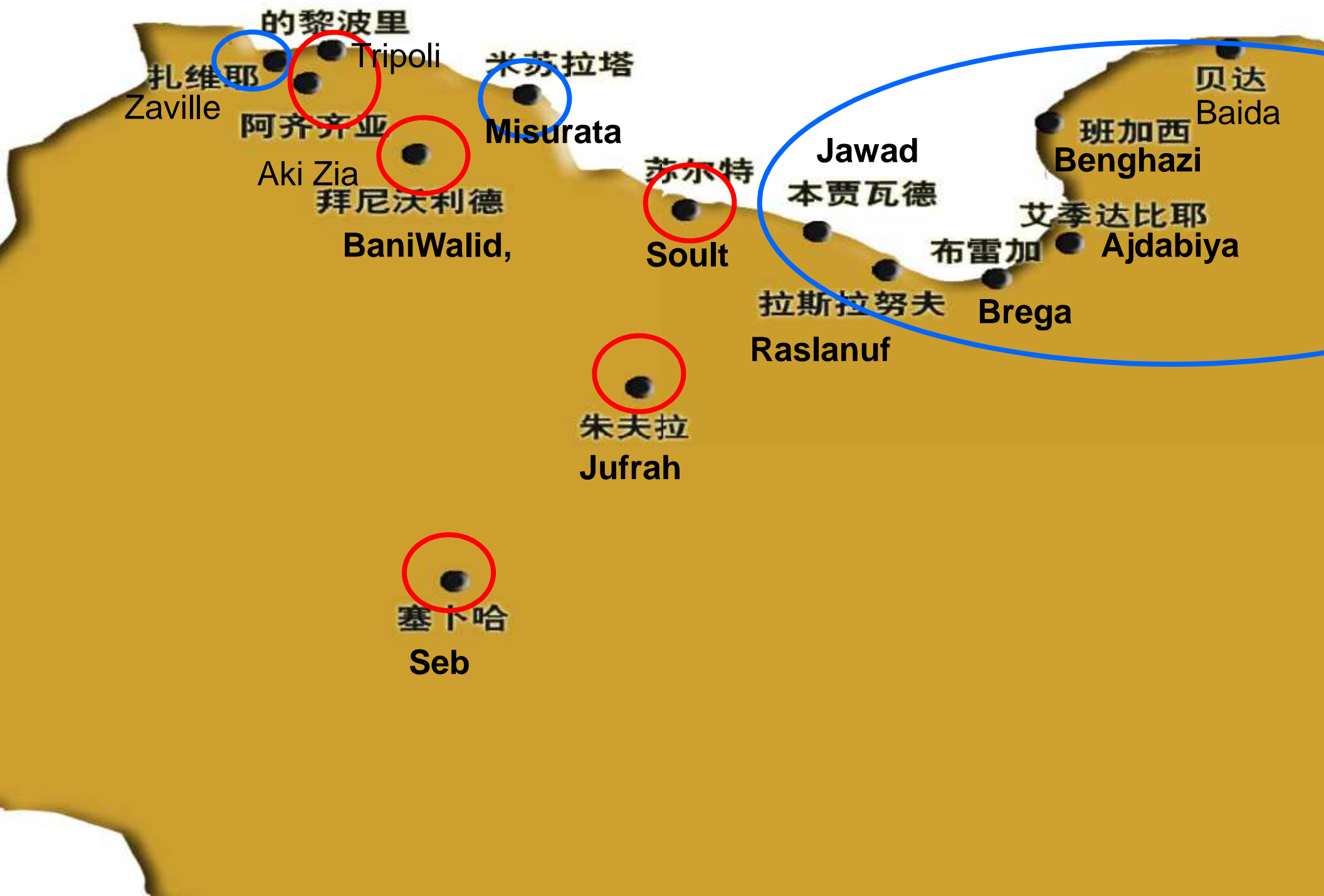


一、战争背景

First, the background of war

2月26日，联合国安理会的15个理事国一致通过第1970号决议，要求对利比亚实行武器禁运；冻结利比亚政府海外财产；决定对利比亚平民提供人道主义援助；将利比亚局势移交国际刑事法院。

On February 26th, 15 members of the UN Security Council unanimously adopted resolution 1970, which required to impose an arms embargo on Libya; to freeze Libyan government's overseas property; to provide humanitarian assistance to civilians in Libya; to refer Libya to the international criminal court.



的黎波里

Tripoli

扎维耶

Zaville

阿齐齐亚

Aki Zia

拜尼沃利德

BaniWalid,

米苏拉塔

Misurata

苏尔特

Soult

朱夫拉

Jufrah

塞卜哈

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Jawad

本贾瓦德

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拉斯拉努夫

Brega

布雷加

班加西

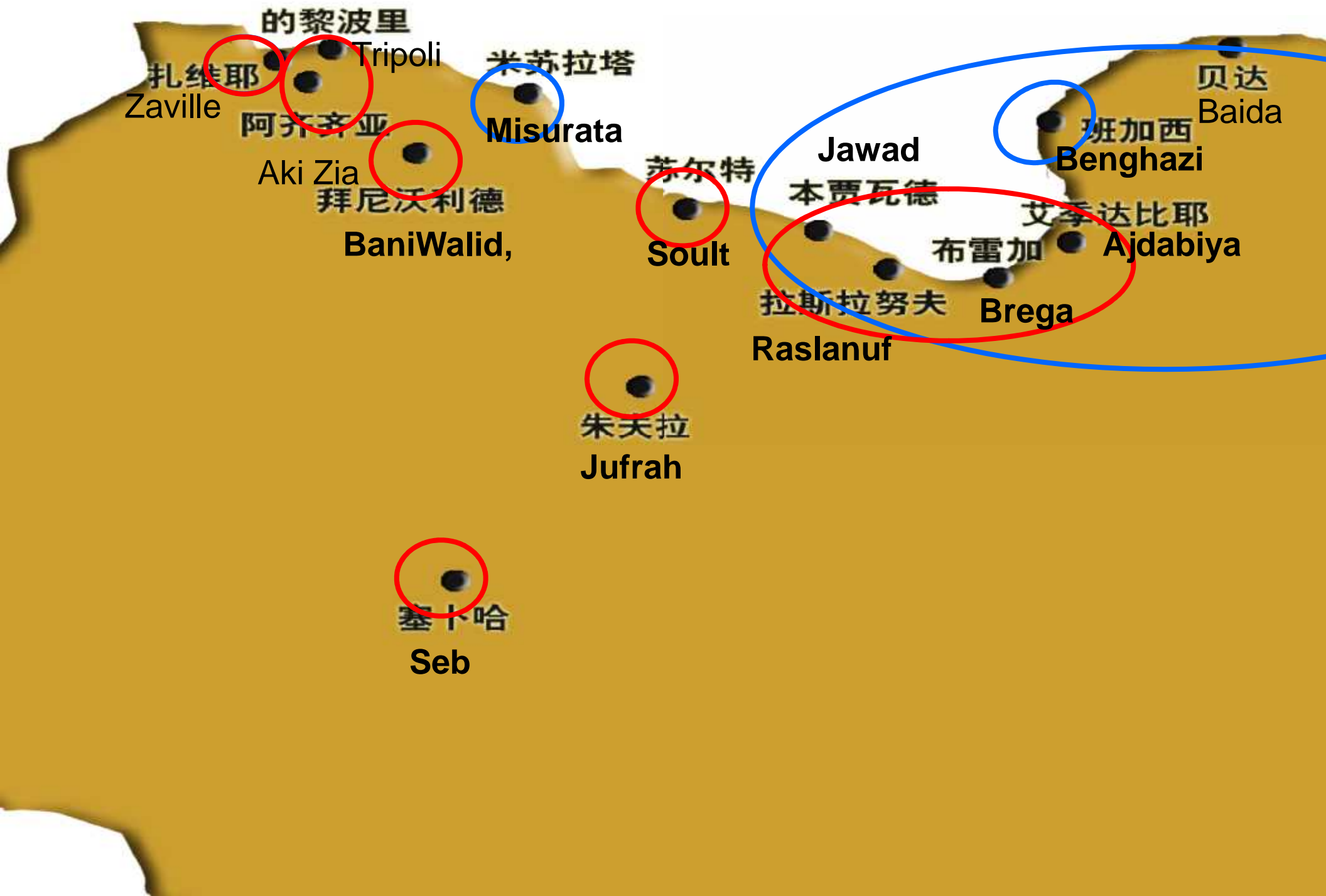
Benghazi

艾季达比耶

Ajdabiya

贝达

Baida



的黎波里

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一、战争背景

First, the background of war

3月12日，阿盟正式建议联合国安理会在利比亚设立禁飞区，并
与“全国过渡委员会”接触。

3月17日，联合国安理会以10票赞成、5票弃权，通过了第1973
决议。

On March 12th, the Arab League formally advised the UN Security Council to set up no-fly zone in Libya, and decided to establish contact with the “National Transition Council”.

On March 17th, the UN Security Council adopted resolution 1973 with 10 votes in favor and 5 abstentions.

一、战争背景

First, the background of war

决议内容包括：要求利比亚政府立即停止暴力行为，采取步骤满足合理要求；在利比亚设立禁飞区，禁止所有飞机在利比亚领空飞行；国家采取除派遣地面部队占领利比亚之外的一切必要措施，保护平民；武器禁运；扩展联合国安理会1970号决议的旅游禁令和资产冻结。

The contents of resolution included: necessitating Libyan government to stop the violence immediately, to take steps to meet the reasonable demands of the people; the establishment of no fly zone in Libya prohibiting all flights in Libya airspace; the countries concerned should take all necessary measures to protect their civilians in Libya except sending ground troops by Libya; to enforce the arms embargo; to implement United Nations Security Council resolution 1970 requiring the travel ban and asset freeze

二、简要经过

Second, brief introduction of the Libya War process

利比亚政府军与反政府武装之间虽然出现过一些“大踏步拉锯战”情形，但总体上看不出什么明显的作战阶段划分，也没有特别重大的战行动，只有一些重要的时间节点标志着战争进程。

In Libya War, although there had been some major encounters between government forces and rebels(anti-government forces), on the whole, no obvious operational phases could be identified, and there were no special major combats and operations. We can only identify some important points which mark the course of war.



二、简要经过

Second, brief introduction of the Libya War process

阶段（3月19日—31日）：美军主导，掌控制空权，瘫痪并举

阶段（3月31日—8月29日）：北约空袭，接管指挥权，助力反政府武装地面攻防，夺控首都

阶段（8月29日—10月31日）：俘毙首脑，利执政当局控制全境

first phase(from March 19th – 31st): led by U.S., to achieve air dominance, paralyze government capabilities and support rebels simultaneously.

second phase (from March 31st to August 29th):NATO took over the command, began the air strikes, and supported rebel forces to launch the ground maneuvers to take control of the capital.

third phase(from August 29th - October 31st) :It marked the decapitation, capture and kill the leaders and the authorities controlling the whole country.

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Second, brief introduction of the Libya War process

第一阶段（3月19日-31日）：美军主导，掌控制空权，瘫痪并举

The first phase(from March 19th – 31st): led by U.S., to achieve air supremacy, to paralyze government capabilities and support rebels simultaneously.



于当地时间3月19日18时45分打响了“第一枪”。

----- 哈麦丹行动

The French “Rafale” fighters began to attack the Libya government troops were besieging Benghazi.

This attack opened the curtain of the Libya War.

The French called this action as “Harmattan”.



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美英两国的舰艇发射上百枚“战斧”式巡航导弹，打击利比亚防空设施。美国空军出动B-2隐身轰炸机、F-16、F-15、“狂风”战斗机对利比亚重要军用机场及其他目标进行了打击。

Then, U.S. and British ships fired hundreds of “Tomahawk” cruise missiles, striking air defense facilities in Libya. The air forces of Britain and the United States employed B-2 stealth bombers, F-16, F-15, “Wind” fighters to strike Libya important military airports and other targets.



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“奥德赛黎明行动” “Operation Odyssey Dawn”

一是阻止利比亚政府军打击反政府武装；

one is to stop Libya government forces against the rebels;

二是遏制利比亚军队违反禁飞区指令。

the other is to suppress Libya from violating the no-fly zone regulations.

3月20日、21日，多国部队战机继续轰炸利比亚防空设施和重要目标。

On March 20th and 21st, the airplanes of multinational forces continued bombing Libya's air defense facilities and important strategic targets.

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从3月22日起，多国部队打击重点从防空体系转向利比亚政府军地面目标，标志着多国部队取得了制空权。

From March 22nd, the multinational forces shifted the focus from the Libyan air defense system to the ground targets, which means the multinational force has achieved complete air dominance.

从3月26日起，美空军的AC-130“空中炮舰”和A-10II“雷电”攻击机开始参与地面攻击，从本土起飞的2架B-1B也参加了对利攻击。

On March 26th, the U.S. air force AC-130 "Air Gunboat" and A-10II "Lightning" attack aircraft began to participate in the ground attack. The two B-1B planes taking off from the United States participated in the attack.

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截至3月27日，多国部队共出动飞机1602架次，总计发射“战斧”巡航导弹199枚。

Until March 27th, the Allied aircrafts conducted 1,602 sorties and launched 199 “Tomahawk” cruise missiles.



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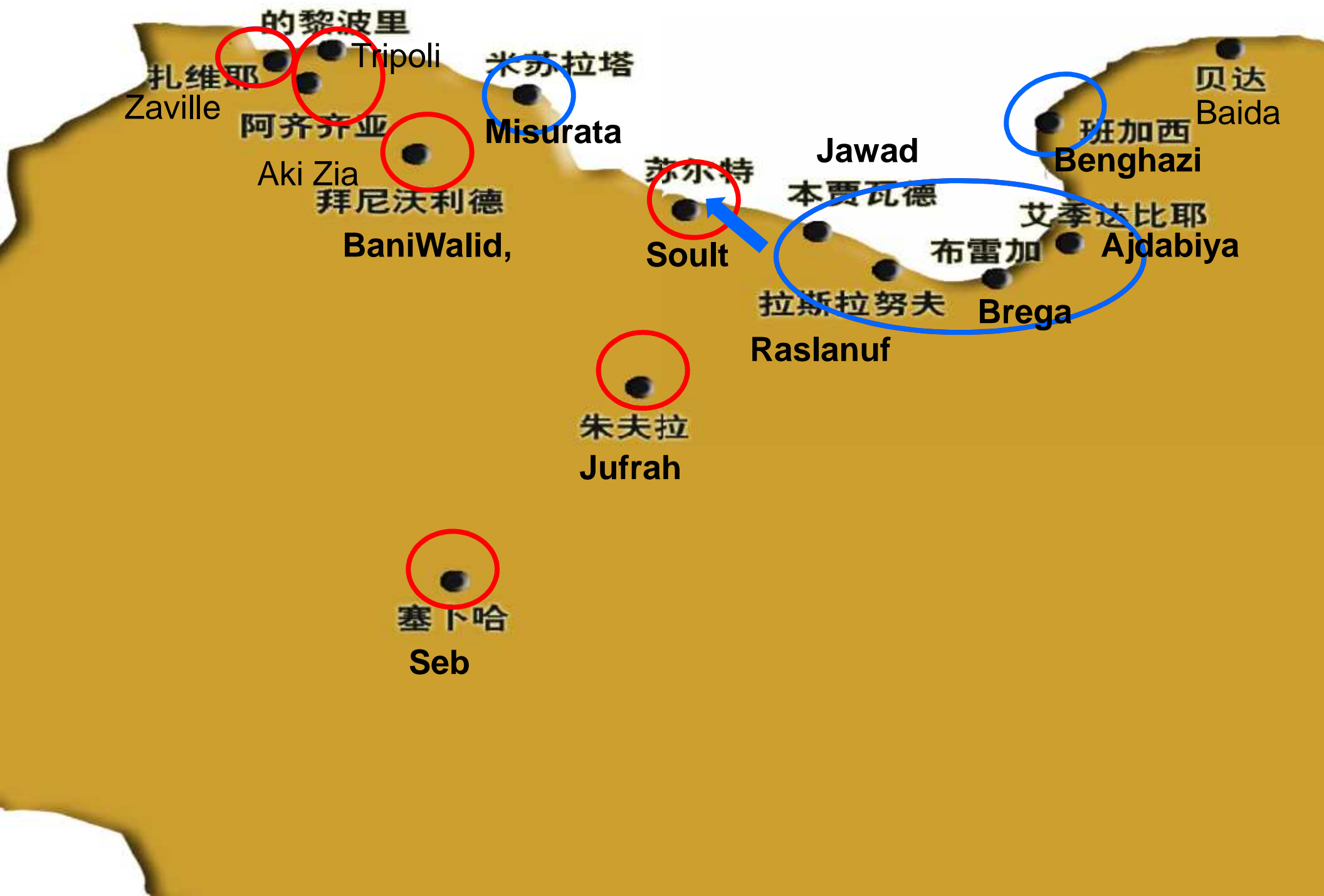
到3月30日，持续12天的“奥德赛黎明行动”正式宣告结束，最初阶段的任务完成。

By March 30th, 12 days “Operation Odyssey Dawn” came to an end.

The U.S. Defense Secretary Robert Gates said the initial stage of the mission was completed.



美国防部长盖
U.S. Defense Secretary R



的黎波里

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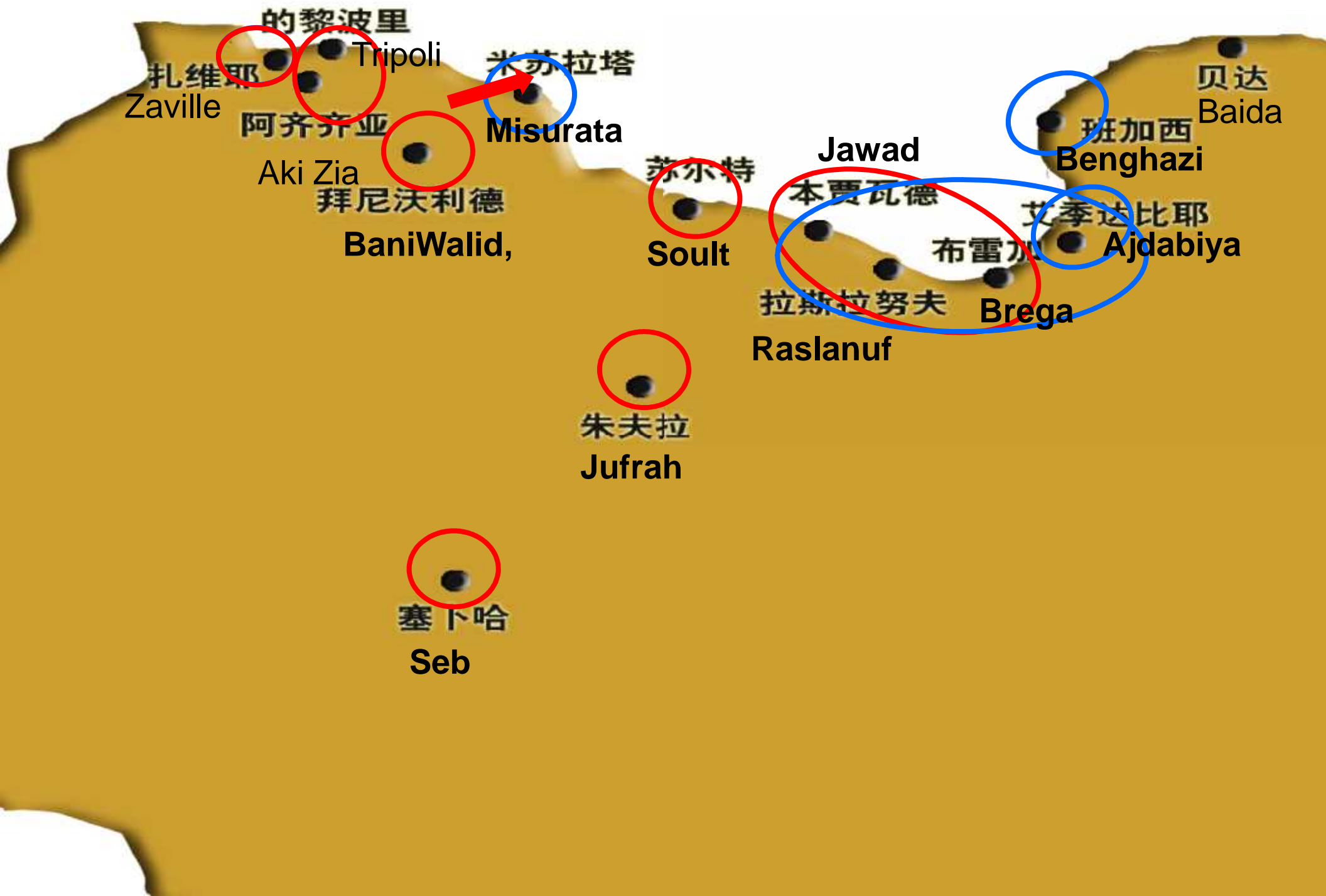
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拜尼沃利德

BaniWalid,

二、简要经过

Second, brief introduction of the Libya War process

第二阶段（3月31日-8月29日）：北约空袭，接管指挥权，助力反政府武装地面攻防，夺控首都
The second phase (from March 31st to August 29th): NATO took over the command, began the air strikes, and supported rebel forces to launch the ground maneuvers to take control of the capital.

3月31日北约接管指挥权。法英开始承担主要作战任务，担负了90%的空袭任务和绝大部分海上作战任务。美军负责支援保障，承担了77%的空中加油，27%的侦察监视以及几乎全部的电子战任务，并为盟国紧急提供了2.5亿美元的精确定制导弹药。

On March 31st, NATO took over the command, British and France began to carry out the main operational tasks, covering 90% air strikes and most of maritime combat tasks. The U.S. military was in supporting role, such as 77% of air refueling, 27% of reconnaissance and surveillance tasks and almost all of the electronic warfare tasks. U.S. also provided precision guidance ammunition costing about \$250,000,000 for Allied countries.

二、简要经过

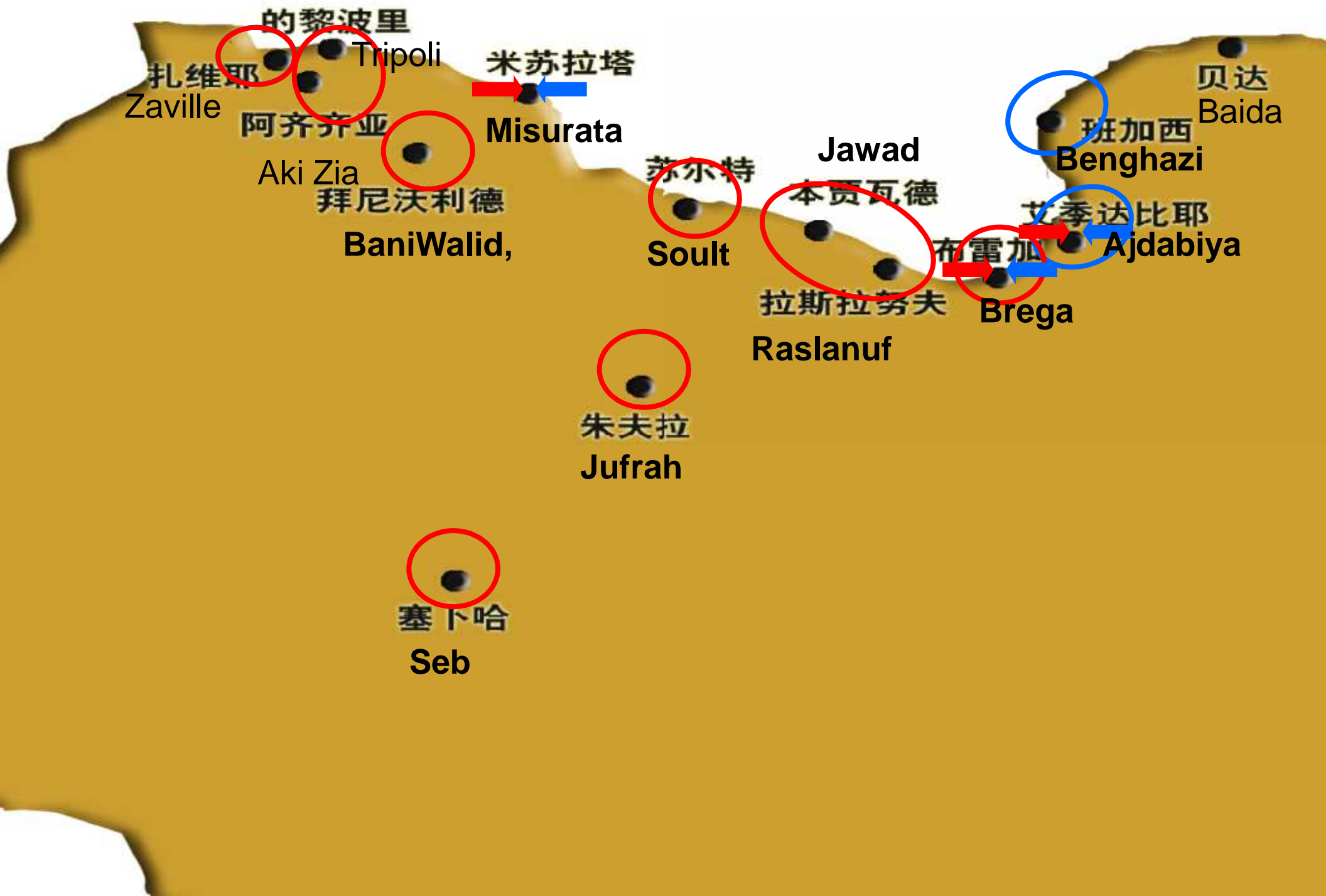
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3月31日，出动178架次飞机。随后这一阶段平均每天出动飞机约138架次。

On March 31st, altogether 178 air sorties were executed. Then onwards NATO maintained average 138 air sorties daily,





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4月15日，美国表示利比亚战争已陷入僵局。

April 15th, U.S. declared that the Libya War had come to a deadlock.

6月13日，反政府武装宣布已完全控制第三大城市米苏拉塔。

June 13th, the rebels announced that it had fully controlled the third biggest city---Misurata.

7月25日，美再次表示利比亚战争陷入僵局。

July 25th, U.S. declared that the Libya War came to a deadlock again.

8月20日，反政府武装攻入的黎波里。

In the evening of August 20th, the rebels attacked into Tripoli.

二、简要经过

Second, brief introduction of the Libya War process

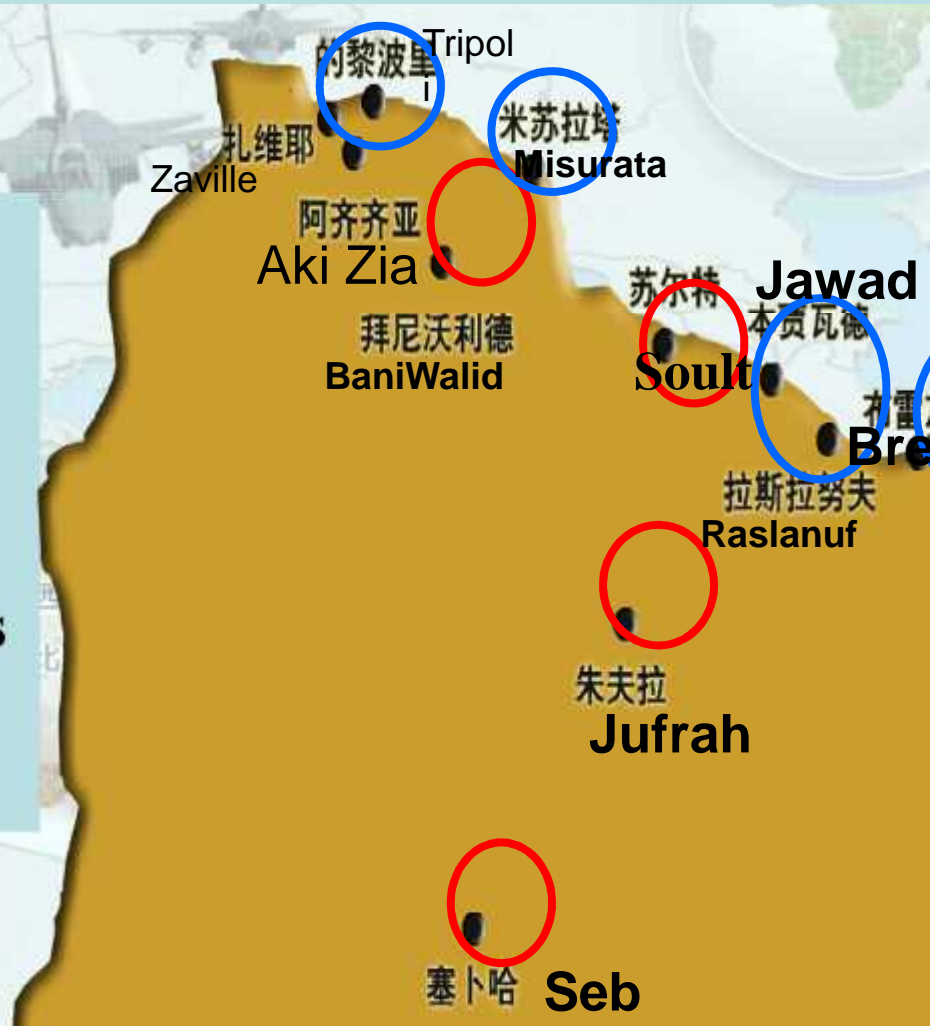
第二阶段（3月31日-8月29日）：北约空袭，接管指挥权，助力反政府武装地面攻防，夺控首都

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8月29日反政府武装宣布已完全控制首都的黎波里。

卡扎菲只剩下苏尔特、拜尼沃利德、塞卜哈、夫拉城镇。

August 29th, the rebels declared they had taken full control of the capital - Tripoli. At this time, Gaddafi troops occupied only 4 towns: Sout, Bani Walid, Seb, Jufrah.



二、简要经过

Second, brief introduction of the Libya War process

第三阶段（8月29日-10月31日）：俘毙首脑，利执政当局控制全境

The third phase was from August 29th - October 31st: It marked the decapitation i.e. to capture and kill the leaders and the authorities controlling the whole country.

平均每天出动飞机约50架次。

The average air sorties were about 50 per day



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9月5日和22日，分别攻占朱夫拉、塞卜哈。

September 5th and the 22nd, the ruling authorities captured Seb, Jufrah.

10月16日，攻占拜尼沃利德。

October 16th, the ruling authorities entered Bani

10月20日，卡扎菲被抓获击毙。

October 20th, Gaddafi was captured and killed when he wanted to escape from Sout.



二、简要经过

Second, brief introduction of the Libya War process

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The third phase was from August 29th - October 31st: It marked the decapitation i.e. to capture and kill the leaders and the authorities controlling the whole country.

10月23日，利比亚执政当局宣布全国解放。

On October 23rd, the Libya ruling authorities declared the liberation of the country.

10月31日，北约宣布利比亚战争结束。

On October 31st, NATO announced the end of the war in Libya.



三、主要特点

Main operational characteristics

不对称性
asymmetry

多国部队与利政府军之间实力的不对称；

in strength between multinational forces and government forces

利政府军与反政府武装之间作战能力的不对称；

in combat capability between government forces and anti-government forces

美国与欧洲国家之间军事能力的不对称；

in military capability between U.S. and European countries

国际干预力量与制衡力量之间的不对称。

in balance of power between international intervention and counterweight

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

反应快速突然 Quick and sudden response

一是危机爆发后迅速在利周边海域
较大规模海上威慑及作战力量

One —— after the outbreak of the crisis, United States, British, France and other countries quickly rallied large-scale offshore deterrence and combat force in the Libyan surrounding seas in the name of the protection of their overseas residents.

“企业”号航母	“Enterprise” aircraft carrier	1
“奇尔沙治”号两栖攻击舰	“Kearsarge” amphibious assault ship	1
“庞塞”号两栖船坞运输舰	“Ponce” amphibious transport dock	1
导弹巡洋舰	Guided missile cruiser	1
导弹驱逐舰	Missile equipped destroyer	4
导弹护卫舰	The guided missile frigate	2
其他军舰	Other warships	1
搭载各型飞机	types of aircraft	70

三、主要特点(一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

反应快速突然 Quick and sudden response

二是在联合国通过“禁飞区”决议后48小时即开始对利实施空袭

Two —— 48 hours after the “no-fly zone” resolution issued by UN, air attack was launched. was sudden.

“阵风”式战斗机
“Gust” fighter



B-2隐身轰炸机
B-2 stealth bomber



三、主要特点(一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

反应快速突然 Quick and sudden response

三是边打击边前靠，快速完成前沿部署

Three — to hit the target while approaching it, the rapid deployment in the frontline could be easily accomplished.



法国“戴高乐”号航母
France “De Gaulle” aircraft carrier



法美多国部队打击利比亚军力调动部署图

The deployment diagram of the allied troops fighting against the Libya forces



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

察情报给力 Credible and reliable reconnaissance intelligence

多国部队利用侦察卫星、预警机、有人和无人侦察机以及人力情报，构成了全天候、立体化的侦察监视体系。

The multinational troops used reconnaissance satellites, AWACS, manned and unmanned surveillance aircraft and human intelligence to constitute all-weather and three-dimensional reconnaissance system.



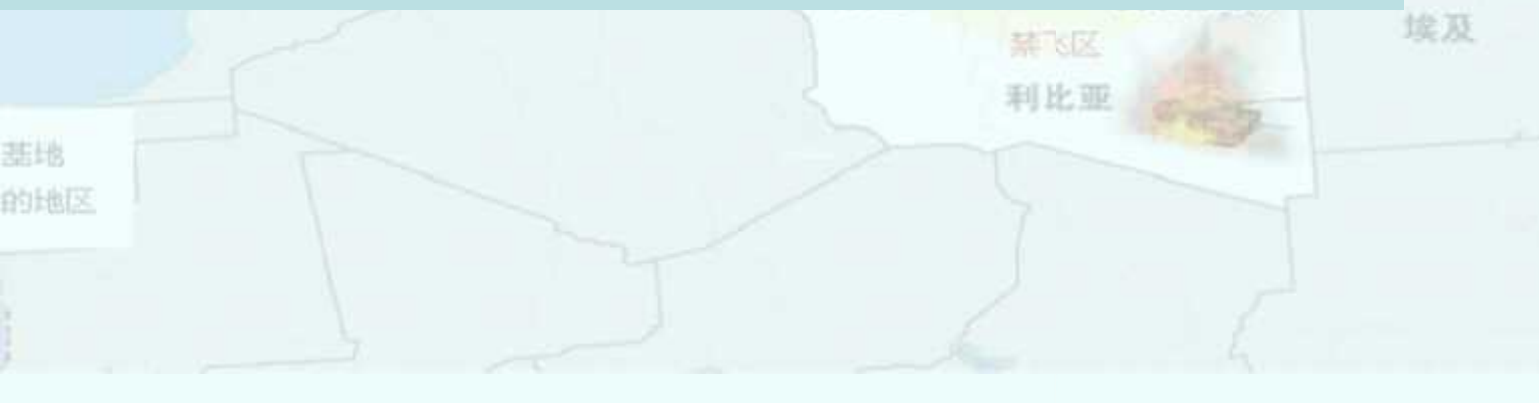
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察情报给力 Credible and reliable reconnaissance intelligence

国的“锁眼-12”、“长曲棍球”和法国的“太阳神-2B”等星对利比亚机场、指控中心、雷达设施及导弹阵地等进行侦察；

merican “Keyhole – 12”, “Lacrosse” and the French “Apollo” had carried detailed reconnaissance on the airports, command center, radar facilities and missile bases in Libya;



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

察情报给力 Credible and reliable reconnaissance intelligence

“全球鹰”无人机、“哨兵”侦察机、E-8C侦察机、E-3预警空中侦察装备获取了大量高精度、近实时情报；

“Global Hawk” UAV, the “Sentinel” surveillance aircraft, E-8C, E-3 ACS, E-8C surveillance aircraft had accessed a large amount of high precision, near real-time intelligence;



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

侦察情报给力 Credible and reliable reconnaissance intelligence

法英等国的特种部队人员对机场、补给线、雷达、防空武器目标进行侦察，并利用便携激光指示器，为战机攻击直接指示。

British and French special forces made reconnaissance to the airports, supply lines, radars, air defense weapons, and used portable laser pointer to direct the targets for warplanes.



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

1. 打击精确高效 Precise and effective attack

与前几场战争广泛选择军事、政治、经济等目标实施高强度打击相比，此次战争西方国家在力量投入、打击目标的种类和数量、打击强度等方面均十分有限。但作战中多国部队动用了大量高新武器装备，并广泛使用精确制导武器，成为一大亮点，实施海、空联合非接触精确打击，效果显著。

Compared to previous highly intensive attacks mostly targeting military, political, economic facilities, the operation was very limited in the power input, the amount and type of target and attack strength. But multinational troops in combat used a large number of high-tech weaponry and equipment, and widely used precision-guided weapons, which became a major bright spot. The joint air-sea non-contact precision attack showed remarkable effect.



三、主要特点(一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

1. 打击精确高效 Precise and effective attack

一、在打击方式上，海空一体、“软”“硬”结合

First, in the mode of attack, air and sea are joined with the combination of “soft” and “hard” methods.

二是空中投掷精确制导弹药和舰艇、潜艇发射“战斧”巡航导弹相结合；打击与电子战、心理战、网络战相配合。

Second, the combination of precision-guided munitions and ship, submarine launching “Tomahawk” cruise missiles; the combination of real attack and electronic warfare, psychological warfare, and cyber warfare to enhance attack effectiveness.



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

打击精确高效 Precise and effective attack

第二，在打击目标的选择上，突出“三打”

Second, the target of attack emphasizes three types of attack.

一是“主打”战略要地军用目标

One —— mainly attack strategic military targets.

机场、导弹阵地、兵营、物资仓库、地面部队以及指挥机构等。
Apparently the targets included airports, missile positions, barracks, material warehouses and ground troops and command posts etc.



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

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第二，在打击目标的选择上，突出“三打”

Second, the target of attack emphasizes three types of attack.

首先是“首打”防空体系目标

—— attack Libya air defense system first.

主要是打雷达、制导系统等。

Mainly attacked air defense radar and guided system.



三、主要特点(一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

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第二，在打击目标的选择上，突出“三打”

Second, the target of attack emphasizes three types of attack.

“重打”对反政府武装构成直接威胁的主战装备

——heavily attack the main equipment posing a direct threat to anti-government forces.

主要是打苏-24对地攻击机、打增援或撤退途中沿公路机动的坦克、火炮以及停放于兵营内的装甲车辆。

in the air, mainly attack Su-24 ground attack aircraft; to the ground directly attack government troops tanks, self-propelled artillery moving or retreating along the road and armored vehicle parking in barracks.

多国部队轰炸利比亚示意图



三、主要特点(一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

1. 打击精确高效 Precise and effective attack

第三，在作战飞机的选择上，以多用途战斗机和近距空中支援飞机为主

Third, the choice of combat aircrafts are mainly multi-functional fighter and close support aircraft.

利比亚战争多国部队较少使用轰炸机，而是以“阵风”、“台风”、“狂风”等多用途战斗机为主。战争初期主要用于夺取战场制空权，之后主要实施对重要的精确打击，各型战斗机共150余架，占全部作战飞机数量的75%。

In Libya War, multinational forces less used bombers, but “Gust” “Typhoon” and other multi functional fighters. At the beginning of the war, they were mainly used to capture the battlefield air dominance. After that, it was the precision strike to the important targets, deploying more than 150 fighters of various types, occupying 75% in the total number of combat aircrafts.



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由于利比亚政府军将重型装备藏匿在城区，高速战斗机识别目标难度大、易造成附带伤害等问题，多国部队在完全夺取制空权后，又派出打击精度高，并可实时攻击的AC-130和A-10攻击机、“阿帕奇”和“虎”式武装直升机等低空低速攻击机，对政府军运动目标进行精确打击，为反政府武装提供近距空中支援。

Because Libya government troops hid heavy equipments in the city, in addition the high speed aircrafts had difficulties recognizing the targets and easily caused collateral damage, the multinational forces after getting air dominance employed AC-130 and A-10 attacker with high precision and real-time attack. The low altitude and low-speed attacker "Apache" and "Tiger" armed helicopters etc. launched precision strikes against moving targets of government forces, providing close air support for the anti-government forces.

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

打击精确高效 Precise and effective attack

第四，在打击弹药的使用上，重在“多用”、“活用”

Fourth, the use of attack ammunition should be more, frequent, and flexible.

“多用”，即大量运用多种精确制导弹药

“More and frequent” means precision guided munitions should be used more and frequently.

对打击城区目标及政府军与平民混杂等情况，多国部队大量使用“战斧”、“风暴阴影”巡航导弹、“钻石路”激光制导炸弹等精确制导弹药，使用比例几乎达到100%。而科索沃、阿富汗和伊拉克，这一比例分别为35%、60%、68%。

In Libya War, according to the target and mixed city areas of government forces and civilian, multinational forces used a large number of “Tomahawk”, “Storm Shadow” cruise missiles, “Diamond” laser guided bombs and other precision guided munitions, they were 100% used, which is unprecedented. In Kosovo, Afghanistan and Iraq, 35%, 60%, and 68% of ammunition were those respectively.

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

打击精确高效 Precise and effective attack

第四，在打击弹药的使用上，重在“多用”、“活用”

Fourth, the use of attack ammunition should be more, frequent, and flexible.

“活用”，即根据不同打击目标灵活选择战斗部
“Flexible”, that is flexible selection of weaponry.

对掩蔽库等坚固目标，采用侵爆弹；对弹药库房、营房等目标，大多采用整爆弹；对飞机、雷达等目标，主要采用杀爆弹；对坦克、自行火炮等装甲目标，采用穿甲弹。

To shelter or other solid targets, penetration bomb should be used; to ammunition depots, barracks and other targets, mostly use the whole bomb; to aircraft, radar targets, mainly use kill bomb; to tanks, self-propelled artillery and other armored targets, use penetrator.

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

打击精确高效 Precise and effective attack

第五，在发现目标到实施打击的周期上，从海湾战争的3天、科索沃战争的101分钟、阿富汗战争的19分钟、伊拉克战争的12分钟，缩短到几分钟之内。

Fifth, it takes shorter and shorter duration from finding the target to attacking it. It took 3 days in the Gulf War, 101 minutes in the Kosovo War, 19 minutes in the Afghanistan War, 12 minutes in the Iraq War. Now it has reduced to a few minutes. It improved the combat effectiveness to the maneuvering target.



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

网络电磁装备、特种部队和无人机作用凸显

Increasingly importance of Network Electromagnetic Equipment, Special Armed Forces and UAV

在利比亚战争中，网络电磁装备作战运用有新动向。美军利用软件病毒等恶意程序向接收天线发送数据实现无线注入，攻击利政府军队的通信系统、雷达站；以系统管理员的身份接管整个网络，窃取情报信息，并迅速提供给反政府武装。

The Network Electromagnetic Equipment has operational application in Libya War. American Army used malicious program, like software viruses to send data into the receiving antenna to realize wireless penetration, so the communication system and radar station of Libya government forces were attacked. In this way, the Libya ground air defense system was in a state of "paralysis" or "death"; It pretended to be the administrator of the system to take over the whole network, collect intelligence, and quickly provide them to the anti-government forces.

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

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特种部队作用有三：一是侦察收集情报，为空袭提供地面信息；二是培训指导反政府武装作战；三是提供情报和制定作战计划；三是协调北约空袭与反政府武装的地面作战。

Special Forces also played an important role in Libya War. It mainly performs three functions: the reconnaissance intelligence collection to provide ground information to air attack; to train and guide anti-government forces in combating, providing them information and mission plan; is to coordinate NATO air attacks and anti-government ground operations.



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《纽约时报》称：北约空袭精确度的提高和反对派出人意料地攻占的黎波里，与特种部队的作用“不可分”。

New York Times said that it was inseparable between the increased accuracy of NATO air attacked capture of Tripoli by the anti-government troops and the role of special forces.



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战争前4个月，无人机承担了美军战机397次打击中的145次，约36.5%，发挥了打击地面重要目标的显著作用。

In the first 4 months of the war, among the 397 attacks by U.S., UAV occupied 145 attacks, so it played a significant role in striking important ground targets.



“全球鹰”
"Global Hawk"

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

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首次投入作战使用的第30批次“全球鹰”无人机，配备最新研制的“合成孔径雷达-动目标指示”传感器，具有动目标跟踪能力，能发现10平方公里范围内车辆大小的移动目标。装备的“增强型综合传感器”可全天时、全天候对静止目标进行侦察，生成分辨率高达0.3米的图像。

For the first time, the thirtieth batches of “Global Hawk” UAV was put into use. It was equipped with the most developed sensor, “synthetic aperture radar - moving target indication”, with the capability of tracking moving targets and locating moving and vehicle-sized targets within 10 square kilometers. The equipment with “enhanced integrated sensor” can be all-weather and all-day to conduct reconnaissance on stationary targets, the generated image with the resolution of 0.3 meters.



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

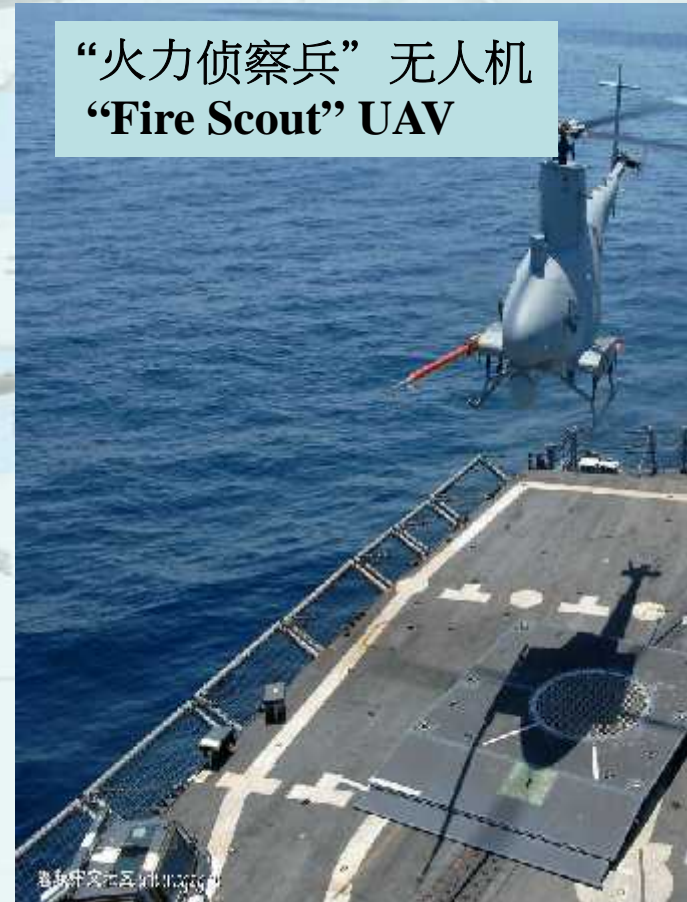
Characteristics of military strike to Libya from multinational troops

网络电磁装备、特种部队和无人机作用凸显

Increasingly importance of Network Electromagnetic Equipment, Special Armed Forces and UAV

“火力侦察兵”无人机首次实现舰载部署，为美军舰艇提供近程情报支援。

“Fire Scout” UAV for the first time achieved shipboard deployment to provide operational offshore intelligence support to ships.



“火力侦察兵”无人机
“Fire Scout” UAV

三、主要特点(一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

网络电磁装备、特种部队和无人机作用凸显

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“对混迹于平民中的利比亚政府军和反政府人员很难识别出来，‘捕食者’则可以飞得更低，更好地确认目标，有助于从敌人中挑出朋友”。

“It is difficult to identify the Libya government forces mixed in the civilians and anti-government personnel, ‘Predator’ UAV can fly lower and better identify friends from the enemy”.

“捕食者” 无人机
“Predator” UAV



美参联会副主席卡特赖特
Cartwright, vice Chairman of the Joint Chief

三、主要特点(一) 多国部队对利比亚军事打击的主要特点

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美《纽约时报》8月21日报道：北约官员称，“捕食者”无人机对
战局“发挥了关键作用”，对利比亚政府军的侦察、跟踪卓有成效。
New York Times on August 21st reported, a NATO officials said,
“predator” UAV “played a key role” in turning the point in the operation.
effective for the reconnaissance and tracking for the Libya
government troops.

“捕食者”无人机“Predator” UAV



RC-135“联合铆钉”电子侦察机
RC-135 “Rivet Joint” reconnaissance aircraft



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

作战持续时间长 Long lasting combating time

海湾战争42天，科索沃战争78天，伊拉克战争主要作战行动21天，而利比亚战争却持续了227天。

Compared to 42 days Gulf War, 78 days Kosovo War, 21 days major operations in Iraq War, 227 days Libya War is comparatively long.



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

作战持续时间长 Long lasting combating time

对这场战争，北约原计划90天。到6月1日，不得已决定将利比亚战争延长90天。到9月21日，北约又不得不决定将战争行动再次延长90天。

NATO planned to complete the war not more than 90 days. But by June had to extend the Libya operation to 90 days. On September 21st, NATO decided to extend another 90 days once again.



三、主要特点(一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

作战持续时间长 Long lasting combating time

以法国为代表的欧洲，在这场战争中，表现得“有心无力”，
一个重要原因。

**France was the representative for Europe. During the war, it
‘strong faith but no true strength’.**



法国总统萨科齐
French President Jacques Chirac



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

作战持续时间长 Long lasting combating time

法国就是要卡扎菲政权下台。这样可以控制利比亚，建立地中海联盟，战略意义重大，也可以避免由于其轻率的外交决策导致的尴尬局面，可以凭借其第一个承认班加西政权的资本，在未来的利比亚格局中获取巨大的战略利益。

France took as a vanguard instead of U.S., quite active, fired the first shot. It had strong resolution and active attitude to throw Gaddafi out the power. So it will control Libya and establish Mediterranean Union, which showed strong strategic significance. So it will control Libya and establish Mediterranean Union, which showed strong strategic significance. So even if France made reckless foreign policy decision leading embarrassing situation, it can obtain the maximum benefit in the process of Libya pattern because it is the first to admit the regime in Benghazi.



法国总统萨科齐
French President Jacques Chirac

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

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而在这场战争中起决定作用的美国，则显得较为犹豫和复杂，“有力无心”，是又一个重要原因。

U.S. may play a decisive role in the war, but it appeared
veryly hesitant and complex-minded.



美国总统奥巴马
American President Obama



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

作战持续时间长 Long lasting combating time

虽然美军起了决定作用，但是离全力以赴还差得太多。

Although American troops played a decisive role, they did not go to it with all efforts.



美国总统奥巴马
American President Obama

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

作战持续时间长 Long lasting combating time

北约方面，由于作战目的坚决，而欧洲力量不足，美国又不用尽全力，从而作战持续时间长。

It is also because of NATO firm objective, the Europe without enough strength and U.S. not going it with all efforts, thus the duration of the war was extended. This is also another reason.



美国总统奥巴马
American President Obama



三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

指挥关系临时变更 Temporarily changed command relationship

一是临时启用美军非洲司令部

one — United States Africa Command was established to perform command and coordination function for multinational troops.



美“惠特尼山”号两栖指挥舰
“Mt. Whitney” amphibious command ship

前期组织筹划时间紧，没有组建统一协调的多国部队司令部的情况下，临时启用美军非洲司令部，承担联军行动的指挥与协调。一线指挥部暂时设在美“惠特尼山”号两栖指挥舰上，法、英空中力量仍由各自司令部指挥。

In the early stage, the organizational planning time was tight. There was no one unified Command for multinational forces, so United States Africa Command was established to perform command and coordination function for multinational troops. The frontline command post was temporarily located on the “Mt. Whitney” amphibious command ship of U.S., and British and French air forces were still commanded by themselves respectively.

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Characteristics of military strike to Libya from multinational troops

指挥关系临时变更 Temporarily changed command relationship

是临时启用美军非洲司令部

—— United States Africa Command was established to perform command and coordination function for multinational troops.



美军非洲司令部司令卡特·哈姆
Commander of U.S. Africa command Carter

美国代号为“奥德赛黎明行动” (Operation Odyssey Dawn), 法国代号为“哈麦丹行动” (Operation Harmattan), 英国代号为“艾利梅行动” (Operation Ellamy), 加拿大代号为“移动行动” (Operation Mobile)。北约从美军手中接手指挥权后, 才将作战行动代号统一为“联合保护行动” (Operation Unified Protector)。

U.S. codenamed was “Operation Odyssey Dawn”, the British codenamed was “Operation Ellamy”, France codenamed was “Operation Harmattan”, Canadian codenamed was “Operation Mobile”. After NATO took command from U.S., operation code was reunified as “Operation Unified Protector”.

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

指挥关系临时变更 Temporarily changed command relationship

是临时启用美军非洲司令部

one —— United States Africa Command was established to perform command and coordination function for multinational troops.

是战中变更指挥权

two —— to change the command during the war.



美军非洲司令部
特·哈特
Commander
U.S. Africa Command
Carter H. Ham



北约盟军总司令詹姆斯·斯塔夫里迪斯
NATO's allied commander in chief James Stavridis

三、主要特点 (一) 多国部队对利比亚军事打击的主要特点

Characteristics of military strike to Libya from multinational troops

对地支援一度误伤频频 **Frequent collateral damages in ground support**

反政府武装本身军事素养太差；

Secondly, it is the poor quality of anti-government troops;

与反政府武装之间没有空地协调的有效装备。

Thirdly, there is not effective coordination for air and ground support with anti-government troops.



三、主要特点(二) 利比亚政府军作战的主要特点

The main combat features of the Libya government t

股分散，灵活隐蔽，躲避空袭

small-sized and distributed, flexible and concealed to avoid air attack.

采取“小股分散、灵活隐蔽”的战术，增大多国部队空袭的难度，有效保存了一定的军力。平时，藏军于民；作战时，伪装成敌。

It took “small-sized and distributed, flexible and concealed” tactics to increase the air attacks difficulty of the multi-national forces, so it effectively preserved military strength. In cease-time, troops were hidden in the mass.



三、主要特点(二) 利比亚政府军作战的主要特点

The main combat features of the Libya government t

运动攻防，开展狙击，减轻城镇攻防作战压力

use and defense by moving, and carry out sniping to reduce the pressure of urban combat.

取“停下就打、打了就跑”的战术，缩短与反政府武装的交战时
北约与反政府武装难以“空地协同”。同时，“以小对小，以散
，分散反政府武装的力量部署，减小争夺重要据点时的压力。
take the “stop to hit, hit and run” tactics, so the engagement time
ortened and “air-ground cooperation” between NATO and anti-
ment forces was hardly accomplished. At the same time, “use the
gainst small, scatter against scatter”, dispersed opposition force
ement, reduced contention stronghold through moving.



三、主要特点(二) 利比亚政府军作战的主要特点

The main combat features of the Libya government t

运动攻防，开展狙击，减轻城镇攻防作战压力

ing offense and defense, carrying out sniping, reduce the pressure of urban combat.

充分利用狙击行动目标小、隐蔽灵活、便于机动等特点，不仅有杀伤和消耗了反政府武装的有生力量，而且在很大程度上增大了反政府武装的威慑，分散了其力量部署，减轻了政府军在正面战场的压力。

It made full use of the characteristics of small and concealed operation targets as well as flexible maneuverability to facilitate not only actively kill and consume the effective strength of anti-government forces, but also largely increase the deterrence and disperse the force deployment to reduce the pressure.



三、主要特点(二) 利比亚政府军作战的主要特点

The main combat features of the Libya government t

锋相对，加强舆论宣传，力争民众支持

r tat, strengthen the publicity, gain support from the masses. NATO is the public opinion
ganda master, but Gaddafi is not too bad, either.



外长弗拉蒂亚
ign Minister Fra Tia



利比亚副外长卡伊姆
Libya Deputy Foreign Minister Kaim



反政府武装总司令尤尼斯
Eunice, commander in chief of anti-gov

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四、几点思考

Four, some considerations and reflections about Libya War.

1、利比亚战争，在作战时机的把握、战局的控制上，对未来联合军作战筹划具有重要的借鉴意义。

1.The Libya War has significant reference values for planning of joint operations in the future in terms of operations opportunity and control of combat.



四、几点思考

Four, some considerations and reflections about Libya War.

过慢打，打得利比亚政府分化，打得反政府武装有了战斗力，打得利执政当
取得越来越多的国家认可，打得民众清楚了卡扎菲的独裁腐化，不仅获得了
略利益，而且付出的代价也相对较小。

**Due to the slowing down of the progress of war, there appeared the division or
Libyan government, the rebels had gradually gained fighting capacity, the ruli
orities achieved diplomatic recognition from more and more countries, and
dafi's corrupt life was revealed to the people. So by slowing down the pace or
ress of war, U.S. won the ultimate strategic interests with relatively minimum**



四、几点思考

Four, some considerations and reflections about Libya War.



美国副总统拜登
U.S. vice president Biden

美国副总统拜登毫不隐讳地说：“利比亚战争采取的策略将成为美国未来解决类似世界问题开出一剂良方。”

U.S. vice president Biden revealed that “The strategy that U.S. adopted in Libya War will become a perfect prescription for America to solve similar problems around the world in the future.”



四、几点思考

Four, some considerations and reflections about Libya War.

2、建立信息系统完备、要素齐全、精干高效的常设联合作战指挥机构，对有效应对战争及突发事件意义重大。

2. The competent and efficient joint operations command and control arrangement with complete information system and elements is of great significance to deal with wars and eventualities or contingencies.



四、几点思考

Four, some considerations and reflections about Libya War.


3、今天的世界仍然是一个讲实力的世界，追求和平与发展，还是要有军事实力作保证，特别是联合作战能力，越是追求和平与发展，越需要提高联合作战能力，做好联合作战准备。

4. The world today is still a talk about the strength. If we want to pursue global peace and development, we must have the military strength first, especially the joint operations capability. The more we want to pursue world peace and development, the more we should improve the joint operations capability. And we should be prepared for joint operations.



四、几点思考

Four, some considerations and reflections about Libya War.



越是追求和平与发展，就越需要提高联合作战能力，做好联合作战准备；准备得越充分，准备得越扎实，就越能实现和平与发展。

The more, we pursue the world peace and development, the more we should improve the capability of joint operations. The more we prepare for the wars, the more possibly we can realize peace and development.



Thank you!



圣迪济耶

阿维亚诺

法国

伊斯特

西班牙

莫龙

科因基岛

塞浦路斯

土耳其

因吉尔利克

特拉帕尼

马耳他

阿克罗蒂里

突尼斯

的黎波里

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班加西

赞坦

艾季达比耶

塞浦路斯

埃及

禁飞区

利比亚

基地的地区