





#### ABOUT MILITARY AFRICA

Military Africe is an international media dedicated to providing military personnel and the defence industry with inormation regarding military and defence matters in Africa. Military Africa is one of the leading defence media in Africa, our content is trusted by key decision-makers in the defence industry as well as military leadership in the continent.

Africa's defence policy-makers and defence industry elite rely on our exclusive information and analysis to make their decisions on a daily basis.

We report and examine defence systems, technology development, and procurement, and how they interact with national and regional security in Africa.



#### **PREFACE**

Once a novelty, drones have become standard military equipment, spawning a global network of units, bases, and test sites. Battlefields in Ukraine, Syria, and Yemen, as well as zones of geopolitical conflict such as the Persian Gulf and the East China Sea, are increasingly crowded with drones of varying size and sophistication. Whether they are used for intelligence gathering, aerial strikes, artillery spotting, or electronic warfare, drones are a leading contributor to the changing character of modern war.

Over the last ten years the number of countries actively using armed unmanned aerial vehicles (UAVs) has quadrupled.

Until recently the use of unmanned aerial vehicles was a preserve of the Western countries. Israel pioneered the use of attack drones in the late 2001, the United States followed suit thereafter, since then attack drones have become the weapon of choice for Counter Insurgency operations.

In the last decade however, the proliferation of communications technology in today's globalized free market economy has ushered in an era of UAV technology for a myriad of purposes. Drones once relegated to intelligence gathering missions have become star players in the global war on terror, and Africa is finally catching up.

The Drone Databook is a study of military drone capabilities. It is comprised of profiles of 31 countries in four regions – North Africa, East Africa, West Africa, and Southern Africa.



#### METHODOLOGY AND SCOPE

The Drone Databook is the result of a multi-year-long study of open source literature on the development, acquisition, organization, and use of unmanned aerial vehicles in a military and security context. The Databook does not address drone acquisitions by non-military agencies or entities, most military drones that existed prior to the 1980s, or military unmanned ground or maritime vehicles.

Primary sources cited in the Databook include official government statements and records, photographs and videos, social media, geospatial imagery, and technical data. Secondary sources include books, newspaper and journal articles, and research papers. Multilingual search methods were used to access certain primary and secondary sources. Free, public databases of military equipment exports, such as that of the Stockholm International Peace Research Institute, and UN Arms Transfer Register were consulted in some cases. Regional experts advised on the organization of forces and the translation of names and places.

Research into drone proliferation—and military capabilities in general—can be challenging. Different governments have varying degrees of transparency and sources may reflect conflicting, out-of-date, or partial information. It can be difficult to know with certainty whether, for example, a particular system or air base is in active use. As a general matter, Military Africa has attempted to take a conservative approach when it comes to evaluating the status of a particular entity.

The terms "unmanned aerial vehicle," or "UAV," and "drone" are used interchangeably in this study.



# REASON FOR THE AFRICAN DRONE PROCUREMENT DATA?

Africa is a continent of vast opportunities and challenges. From fighting terrorism to boosting development, from securing borders to protecting wildlife, African nations need to be ready for any scenario. And that's why they need the best tools for the job. Unmanned aerial vehicles, or UAVs, are the game-changers of modern warfare. They provide unmatched surveillance, reconnaissance, and strike capabilities, while reducing the risks and costs of human pilots.

They are the ultimate force multipliers for any military operation. Drone manufacturers, suppliers and designers needs to understand the driving forces behind African militaries unmanned systems acquisitions, backed by reliable and trusted data.

But how can you keep track of the fast-changing UAV market in Africa? How can you find reliable and comprehensive data on the procurement, deployment, and performance of UAVs across the continent? How can you gain a competitive edge in this emerging and lucrative sector? That's where our UAV dataset comes in. It offers you a complete view of the African UAV market, from 1980 to 2024, with over 180 equipment entries, 1534 units, and detailed information on suppliers, procurement dates, and more.

With our drone dataset, you can access, analyze, and visualize the data you need. enrich your research with our indepth granular data, ONE COMPLETE VIEW OF DEFENCE MARKET INFORMATION. Level up your decision-making abilities with our drone dataset. Find the next big opportunity for your business, spot threats before your competitors and be the driving force behind data-driven decisions. make intelligence-backed decisions collected for you by one of the leading defence media globally.

See the full market picture and identify your next opportunities at speed, all in-platform. Track your competition and beat them to the wins that matter most whilst making sure you never miss a renewal again. With a full picture of the market at your fingertips, you'll have more time to focus on building a proposal for your customer that they simply can't say no to. Military Africa is trusted by leading defence media, analysts, and professionals worldwide. It is the ultimate source of intelligence for the African UAV market, and the best way to make data-driven decisions that will boost your business and your impact. Don't miss this chance to get access to the most comprehensive and up-to-date data on the African UAV market.

The drone dataset compiled by Military Africa is a treasure trove of information that offers numerous insights into the UAV market across the continent. It reveals patterns of procurement and use that could indicate strategic priorities and defense capabilities of various African nations. The dataset likely shows the evolution of drone technology over time, reflecting advancements in design, capability, and application. It may also highlight the most active suppliers and manufacturers in the market, shedding light on the business relationships and alliances that shape the defense sector.



Furthermore, the dataset could provide an understanding of the scale and scope of investment in UAVs by African countries, which is crucial for assessing market size and growth potential. It might also uncover trends in the types of drones that are in demand, whether for surveillance, combat, or other purposes, offering a glimpse into the operational needs and security concerns of the continent.

Additionally, the dataset can serve as a benchmark for technological development, indicating which countries are leading in adopting new UAV technologies. It might also reveal the frequency and volume of purchases, which can inform predictions about future market movements. The granularity of the data allows for a deep dive into specifics, such as the most popular models, the average lifespan of drones in service, and the rate of replacement or upgrade.

Overall, the insights gleaned from Military Africa's drone dataset are invaluable for stakeholders in the defense industry, providing a comprehensive and detailed picture of the African UAV landscape. This information is not only critical for making informed decisions but also for maintaining a competitive edge in a rapidly advancing technological domain. The dataset is an essential resource for anyone looking to understand or participate in the defense market in Africa.

Don't miss this chance to get access to the most comprehensive and up-to-date data on the African UAV market.



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#### SYSTEM CLASSIFICATION

Each of the drones in The Drone Databook are assigned a classification ranging from I to III based largely on their maximum take-off weight: Class I (less than 150 kilograms), Class II (150 to 600 kilograms), and Class III (more than 600 kilograms). These classifications are drawn from NATO Standardization Agreement 4670—NATO's guidance for training drone operators.

Class I encompasses an array of designs ranging from tiny handheld drones to larger, multirole systems. A typical Class I aircraft has an endurance of between one and three hours, a maximum range of approximately 80 kilometers, a payload capacity of 5 kilograms, and a top speed of 100 kilometers-per-hour. Class I aircraft are launched by hand or pneumatic rail and typically come equipped with an electro-optical and infrared sensor package. Class I includes both fixed- and rotary-wing aircraft, as well as a small number of hybrid UAVs that combine vertical take-off and landing and horizontal flight. The majority of Class I aircraft are used to carry out reconnaissance and surveillance missions and do not carry weapons. Loitering munitions—drones armed with a small explosive warhead and designed to explode on impact—are included in the Databook as Class I systems. The NATO definition of Class I includes three sub-categories—Micro, Mini, and Small—which, for the sake of simplicity, are treated equally as Class I systems in the Databook.

- Class II aircraft are sometimes referred to as "tactical" UAVs. A typical Class II aircraft has an endurance of 10 hours, a maximum range of between 100 and 200 kilometers, a payload capacity of up to 70 kilograms, and a top speed of 200 kilometers- per-hour. Class II systems may be fixed-wing—which typically require a small runway for launch or recovery—or rotary-wing in layout. A single Class II aircraft can be equipped with multiple payloads, such as electro-optical and infrared sensors, laser designators or illuminators for targeting, and communications relay equipment. While the majority of Class II aircraft are unarmed, some models can be equipped with lightweight ordnance, typically air-to-ground guided missiles similar to those used by manned attack helicopters.
- Class III aircraft are sometimes referred to as "medium-altitude long-endurance" (MALE) or "high-altitude long-endurance" (HALE) UAVs. A typical Class III system has an endurance of up to 24 hours or more, a payload capacity of several hundred kilograms, and a top speed of up to 300 kilometers-per-hour or more. Some Class III drones can be operated at a range of several thousand kilometers or more, though this depends on the communications equipment used. Class III includes both fixed-wing— which require a runway for launch and recovery—and rotary-wing aircraft. Many Class III aircraft are capable of carrying a mix of weapons, though some UAVs in this class are designed solely for intelligence-gathering. The NATO definition of Class III includes three sub-categories—MALE, HALE, and Strike/Combat—which, for the sake of simplicity are treated equally as Class III systems in the Databook.



## **Unmanned Aircraft According to Classification**





### Summary of Aircraft and Unit Classifications in the Databook

| CLASS                   | CATEGORY          | EMPLOYMENT                                  | OPERATING<br>ATITUDE  | MISSION RADIUS      |
|-------------------------|-------------------|---|-----------------------|---------------------|
|                         | Strike/<br>Combat | Strategic/<br>National                      | Up to 65,000ft<br>MSL | Unlimited (BLOS)    |
| Class III<br>(> 600kg)  | HALE              | Strategic/<br>National                      | Up to 65,000ft<br>MSL | Unlimited (BLOS)    |
|                         | MALE              | Operational/<br>Theatre                     | Up to 45,000ft<br>MSL | Unlimited<br>(BLOS) |
| Class II<br>(150-600kg) | Tactical          | Tactical<br>Formation                       | Up to 18,000ft<br>AGL | 200km<br>(LOS)      |
|                         | Small<br>(>15kg)  | Tactical Unit                               | Up to 5,000ft<br>AGL  | 80km<br>(LOS)       |
| Class I<br>(< 150kg)    | Mini<br>(<15kg)   | Tactical Subunit<br>(manual or hand launch) | Up to 3,000ft<br>AGL  | Up to 25km<br>(LOS) |
|                         | Micro<br>(<6kg)   | Tactical Subunit<br>(manual or hand launch) | Up to 200ft<br>AGL    | Up to 5km<br>(LOS)  |



### **Unmanned Aircraft According to Type**











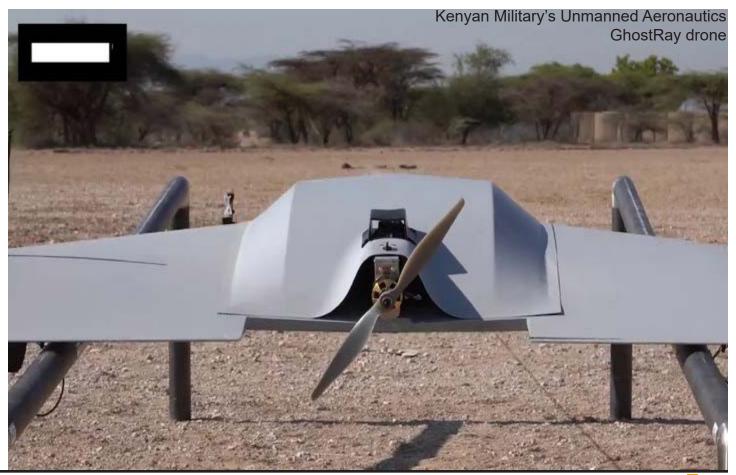


# Soaring High: An Analysis of African Drone Procurement Trends (1980-2024)

# Introduction:

A frica is a continent on the rise, grappling with diverse challenges and opportunities. From bolstering security to enhancing development, African nations are increasingly turning to technological advancements to address these critical issues.

Among these advancements, unmanned aerial vehicles (UAVs), or drones, have emerged as game-changers, offering unparalleled capabilities in surveillance, reconnaissance, and even strike operations. This analysis delves into the trends and data surrounding African drone procurement from 1980 to 2024, providing insights into the continent's evolving needs and strategic priorities.





BlueBird Aerosystems Spylite Mini-UAS in service with the Senegalese military (Credit: X) [UP]



Boeing Insitu Scan Eagle Mini-UAS in service with the Cameroon military's special forces unit (BIR) (Credit: X)

# Key Findings:



- **1. Growing demand**: A total of 31 African countries have acquired drones since 1980, with a cumulative total of 1,534 units procured. This signifies a steady rise in drone adoption across the continent.
- 2. Class and type preferences: The market is almost evenly distributed, however, Class II drones (medium-sized, tactical systems) dominate procurement, accounting for nearly 40% of all units, followed by Class I (micro, mini, and small) and Class III (MALE/HALE) drones. Fixed-wing drones are the most popular type, constituting over 80% of acquisitions, likely due to their longer range and endurance capabilities.
- **3. Procurement surges**: The year 2020 witnessed the highest procurement peak, with 237 drones acquired, followed by 2022 and 2021. This surge could be attributed to factors like increasing security concerns, growing awareness of drone benefits, and readily available technology.
- **4. Egypt leads the pack**: Egypt stands out as the top buyer with 267 drones, followed by Morocco and Nigeria. This dominance might be linked to their strategic locations, significant security challenges, and relatively larger defense budgets.
- **5. Regional variations**: North Africa leads in drone acquisition (53%), followed by West, East, and Southern Africa. This aligns with North Africa's larger defense spending and its proximity to conflict zones.
- **6. Drone diversity**: A wide range of drone models are employed, with Turkish Bayraktar TB2, Israe-li Wander B, and Chinese Wing Loong I being the top choices. This highlights the diversification of drone models.
- **7. Supplier landscape**: China is the leading supplier (26%), followed by Israel and the United States. Notably, African indigenous companies are making strides, contributing 12% of the total drones. This signifies a growing domestic drone industry with potential for future expansion.
- **8. Manufacturer dominance**: BlueBird Aerosystems, AVIC, and CASC are the top manufacturers, collectively supplying over 30% of the drones. This dominance reflects their established production capabilities and competitive offerings.
- **9. Positive growth forecast:** Africa is a continent with diverse security challenges, ranging from terrorism, insurgency, civil war, border disputes, and wildlife poaching. These challenges have created a demand for military drones, which can provide intelligence, surveillance, reconnaissance, and strike capabilities for African armed forces. Drone procurement is expected to increase in the future, as technology becomes more advanced and affordable, creating new opportunities for innovation and economic growth.
- **10. Focus on regulatory frameworks**: As drone use expands, robust regulatory frameworks will be crucial to ensure safe and responsible operation, addressing concerns about privacy and security.



# Insights and future outlook:

The analysis reveals a dynamic and evolving African drone market. The growing demand is driven by several factors, including:

- 1. Security concerns: Combating terrorism, piracy, and border security are key priorities for many African nations, where drones provide crucial aerial surveillance and intelligence gathering capabilities.
- 2. Development needs: Drones are increasingly used for tasks like infrastructure monitoring, precision agriculture, and disaster management, contributing to economic development and social well-being.
- 3. Technological advancements: Continuous advancements in drone technology are making them more affordable, accessible, and user-friendly, further fueling their adoption.

Looking ahead, the African drone market is expected to witness continued growth, driven by the factors mentioned above. Some key trends to watch include:

- Increased indigenous production: African countries are likely to invest in building their own drone
  manufacturing capabilities, reducing dependence on foreign suppliers and fostering technological
  self-reliance.
- 2. Diversification of applications: Drones will be employed in a wider range of civilian and military applications, creating new opportunities for innovation and economic growth.
- 3. Focus on regulatory frameworks: As drone use expands, robust regulatory frameworks will be crucial to ensure safe and responsible operation, addressing concerns about privacy and security.



Kenyan military AeroVironment RQ-11 Raven micro-UAS deployed in its operations against Al Shabaab.



In conclusion, the analysis paints a clear picture of Africa's burgeoning drone market. By understanding the current trends and anticipating future developments, stakeholders can make informed decisions to leverage this technology for the continent's benefit, promoting security, development, and progress.

#### Additional notes:

- This analysis is based on the provided data and might not encompass all aspects of the African drone market.
- It is important to consider the ethical implications of drone use, particularly in the context of human rights and potential misuse.
- Continuous monitoring and analysis of the drone market are crucial to stay updated on the latest developments and their impact on Africa.



## ANALYTICAL REPORT

ilitary Africa has conducted an extensive multi-year analysis of drone sales data, culminating in a comprehensive report that includes a variety of visualizations. These visual representations are designed to convey complex data in an easily digestible format, allowing readers to quickly comprehend the scale and distribution of drone sales across different suppliers and recipients.

#### **Detailed Report:**

The visualizations presented in the report include:

- **Pie Chart**: This classic chart type offers a visual fraction of drone sales per supplier, illustrating the market share each holds.
- **Donut Chart**: Similar to the pie chart but with a central cut-out, this chart provides a clear view of the proportions of drone sales while allowing for additional information to be placed in the center.
- **Bar Chart**: Offering a straightforward comparison, the bar chart displays the number of drones sold by each supplier, side by side, facilitating a direct visual comparison between suppliers.
- **Histogram**: This chart type shows the distribution of drone sales over a set period, highlighting trends and patterns in the purchasing behavior of recipients.
- **Bespoke Graphical Representations**: Tailored to specific aspects of the data, these custom charts provide unique insights into the nuances of the drone market.



Each chart has been meticulously crafted to ensure clarity and ease of understanding. The goal is to enable readers to quickly gauge the volume of drone sales, identify leading suppliers, and understand the preferences of recipients.

#### **Insights and Analysis:**

While Military Africa has provided valuable insights and visualized the data effectively, the report is structured to encourage readers to delve deeper and extract additional insights that are pertinent to their specific business needs. The data is rich with information that can inform strategic decisions, identify market trends, and reveal competitive dynamics.

#### **Conclusion:**

The report serves as both a snapshot of the current state of drone sales in Africa and a tool for strategic analysis. Readers are equipped with the necessary information to interpret the data in a way that aligns with their business objectives, ensuring they can make informed decisions based on the comprehensive data provided.



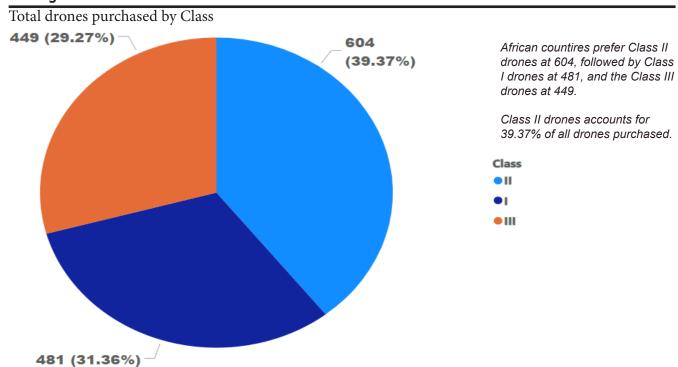


A total of 31 countries have procured drones since 1980 till date. A total of 1,534 drone units have been procured by African countries since 1980 till date.

#### **BY CLASS:**

NATO categorizes UAS into three dedicated classes, ranging from Class I for the micro, mini and small ones, to Class II for medium-sized, tactical systems, to Class III for Medium-Altitude Long-Endurance (MALE) and High-Altitude Long-Endurance (HALE) aircraft.

- 1. In Africa, from 1980 to 2024, Class II drones have the highest Total Quantity procured at 604 units, followed by Class I drones at 481 units, and Class III drones at 449 units.
- 2. Class II drones accounted for 39.37% of the total amount of drones procured during this period (1980 to 2024).
- 3. All classes are evenly procured due to differing operational requirements across all regions.



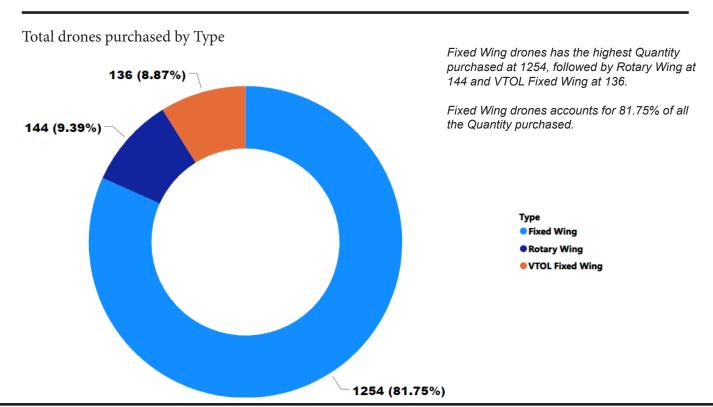




A total of 31 countries have procured drones since 1980 till date. A total of 1,534 drone units have been procured by African countries since 1980 till date.

#### BY TYPE:

- 1. Drones are classified into three types, these are; fixed-wing, rotary-wing, and vtol rotary-wing.
- 2. Fixed-wing drones have the highest Total Quantity procured at 1254, followed by rotary-wing drones at 144 and VTOL Fixed-Wing drones at 136. Fixed Wing accounted for 81.75% of the Total Quantity procured.
- 3. All regions procured a higher number of fixed-wing drones compared to the others.
- 4. Fixed wing drones are preferred accross all region owing to their inherent ability to fly for longer ranges compare to other type of drones.

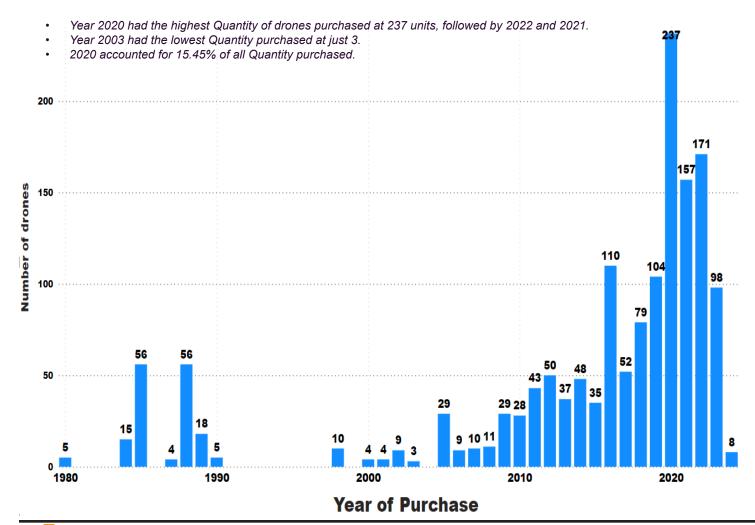




#### BY YEAR PROCURED

- 1. Year 2020 had the highest Total Quantity procured at 237, followed by Year 2022 and Year 2021. 2003 had the lowest Quantity procured at just 3.
- 2. Year 2020 accounted for 15.45% of the Total Quantity of drones procured.
- 3. Across all 32 Years of Purchase, the Sum of the Quantity of drones procured ranged from 3 to 237.
- 4. There were no recorded drone procurement in the years 1981, 1982, 1983, 1986, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1999, and 2004.
- 5. The last decade saw a larger number of drones procures as a result of Africans grapsing the advantages offered by unmanned aerial vehicles.

Total drones purchased by the Year

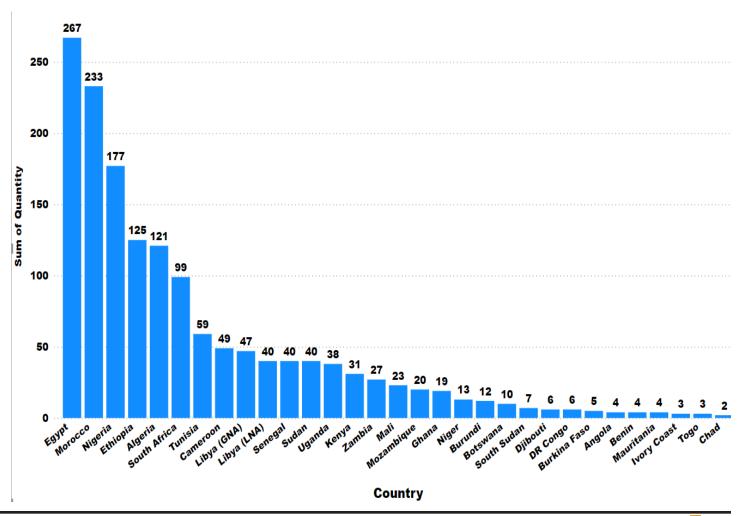


# **<<<**-

#### BY COUNTRY

- Egypt has the highest quantity of drones purchased at 267, followed by Morocco and Nigeria. Chad has the lowest Quantity at just 2.
- 2. Egypt accounted for 17.41% of the Total Quantity of drones procured.
- 3. Across all 31 Countries, the Sum of the Quantity of drones procured ranged from 2 to 267.
- 4. North Africa is considered the most powerful region in terms of military capabilities, and expenditure. this explains why Egypt and Morocco operates larger quantities of drones.
- 5. Nigeria is a heavy spender in terms of defence expenditure, and the country relies heavily on unmanned systems to bridge the gap in its military capabilities, especially as it is currently engaged in a decade-old counter-insurgency.
- For Ethiopia, due to its past and ongoing conflicts, particularly in the Tigray and Somali region, the country turned to unmanned aerial vehicles to augment its limited military capbilities.

Total drones purchased by the Countries

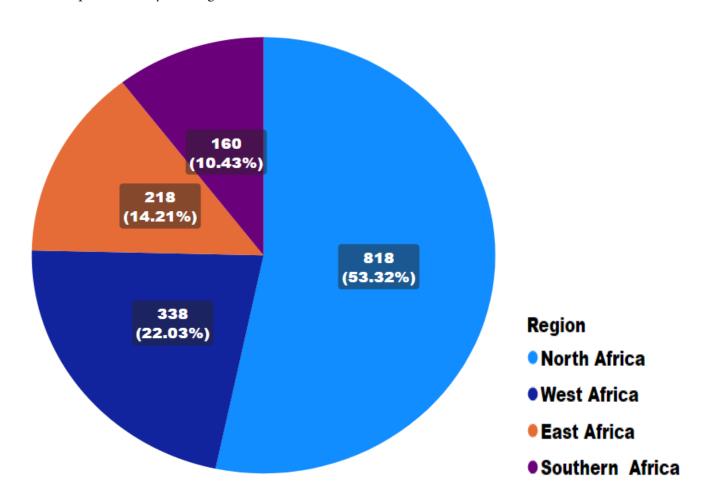




#### BY REGION

- 1. North Africa has the highest number of drones procured at 818, followed by West Africa at 338, East Africa at 218, and Southern Africa at 160.
- 2. North Africa accounted for 53.32% of the Total Number of drones. procured.
- 3. Unsurprisingly, North Africa which includes Egypt, Algeria, Tunisia, Morocco, Libya, and Sudan etc, has procured a larger number of drones due to its past and ongoing unrests in the region.
- 4. In West Africa, the vast number of drones procured belongs to Nigeria which is battling several security challenges, and has a large landmass to survey and cover.
- 5. Similarly, in East Africa, Ethiopia, Kenya etc operates a larger part of the drones procured due to their ongoing conflict with Al Shabaab, and the Tigrayan rebels.

#### Total drones purchased by the Region



# QUANTITY AND TYPE OF DRONES PROCURED BY REGION



#### **NORTH AFRICA**

North Africa procured 765 Fixed-wing drones, 28 Rotary Wing drones, and 25 VTOL Fixed-wing drones.



- FIXED WING (767)[93.52%]
- **ROTARY WING (28)[3.42%]**
- VTOL-FIXED WING (25 [3.06%]

#### **WEST AFRICA**

West Africa procured 200 Fixed-wing drones, 87 Rotary Wing drones, and 51 VTOL Fixed Wing drones.



- FIXED WING (200)[59.17%]
- ROTARY WING (87)[25.74%]
- **VTOL-FIXED WING(51)[15.09%]**

#### **EAST AFRICA**

East Africa procured 149 Fixed wing drones, 9 Rotary Wing drones, and 60 VTOL Fixed Wing drones.



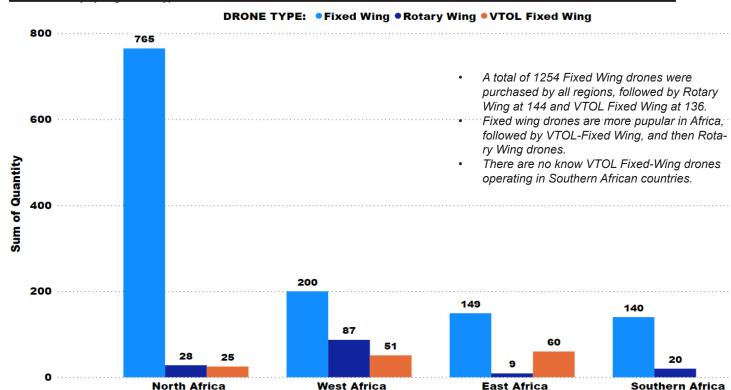
- FIXED WING (149)[68.35%]
- **ROTARY WING (9)[4.13%]**
- **VTOL-FIXED WING(60)[27.52%]**

#### **SOUTHERN AFRICA**

Southern Africa procured 140 Fixed wing drones, 20 Rotary Wing drones, and no VTOL Fixed Wing drones.



- FIXED WING (140)[87.50%]
- ROTARY WING (20)[12.5%]
- **VTOL-FIXED WING(0)[0]**



# AFRICA'S DRONE PROCUREMENT DATA QUANTITY AND CLASS OF DRONES PROCURED BY REGION

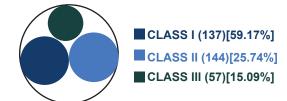
#### NORTH AFRICA

North Africa procured 108 CLASS I drones, 411 CLASS II drones, and 299 CLASS III drones.



#### **WEST AFRICA**

West Africa procured 137 CLASS I drones, 144 CLASS II drones, and 57 CLASS III drones.



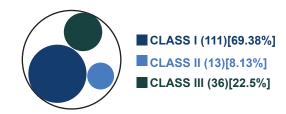
#### **EAST AFRICA**

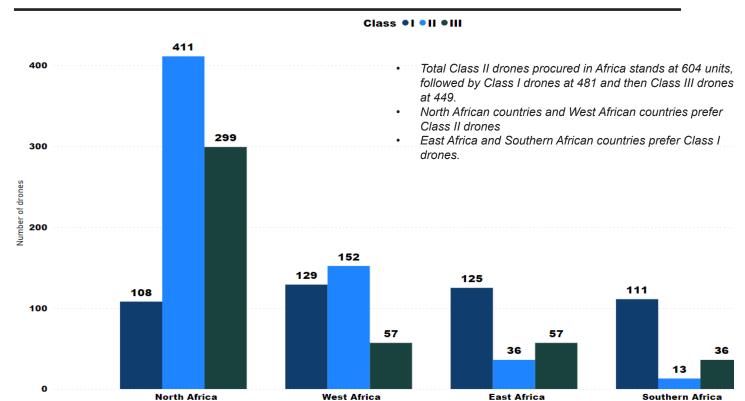
East Africa procured 125 CLASS I drones. 36 CLASS II drones, and 57 CLASS III drones.



#### **SOUTHERN AFRICA**

Southern Africa procured 111 CLASS I drones, 13 CLASS II drones, and 36 CLASS III drones.

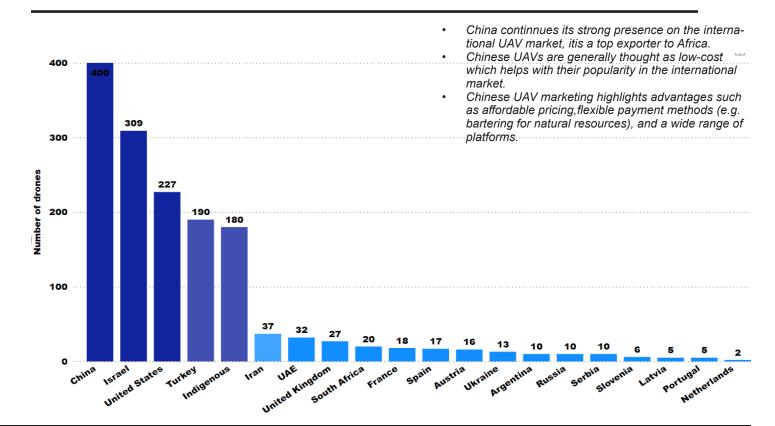




### BY SUPPLIER COUNTRY



- 1. At 400 units, China supplied the most drones to African countries, followed by Israel at 309 units, and United States at 227 units. while Netherland supplied the least drones at just 2 units.
- 2. China accounts for 26.08% of all the drones procured by African countries.
- 3. China has supplied 25 different models of drones.
- 4. Chinese drones procured by African countries includes: WING LOONG I, WING LOONG II, CH-3 Rainbow.
- 5. Surprisingly, Israel have supplied a large numer of drones, mostly to Morocco. These are largely tactical in nature to enable Moroccan soldiers on the battle field understand the movement of enemy troops.
- 6. United States drones in Africa are mostly tactical ISR drones for small combat units or special forces, such as the SkyEye, and RQ-11 Raven. The drones are usually operated by troops on the battle field.
- 7. The latest entrant in the African drone operators is Turkey. The countrry's Bayrakter TB2 is versatile, as well as cost-effective, this makes it an attractive option for African countries with multiple security requirements.
- 8. A large number of African ountries are now producing their own drones, this includes Egypt, Nigeria, South Africa, Sudan, Ethiopia, and Kenya.







## TABULAR REPRESENTATION BY SUPPLIER COUNTRY AND CLASS

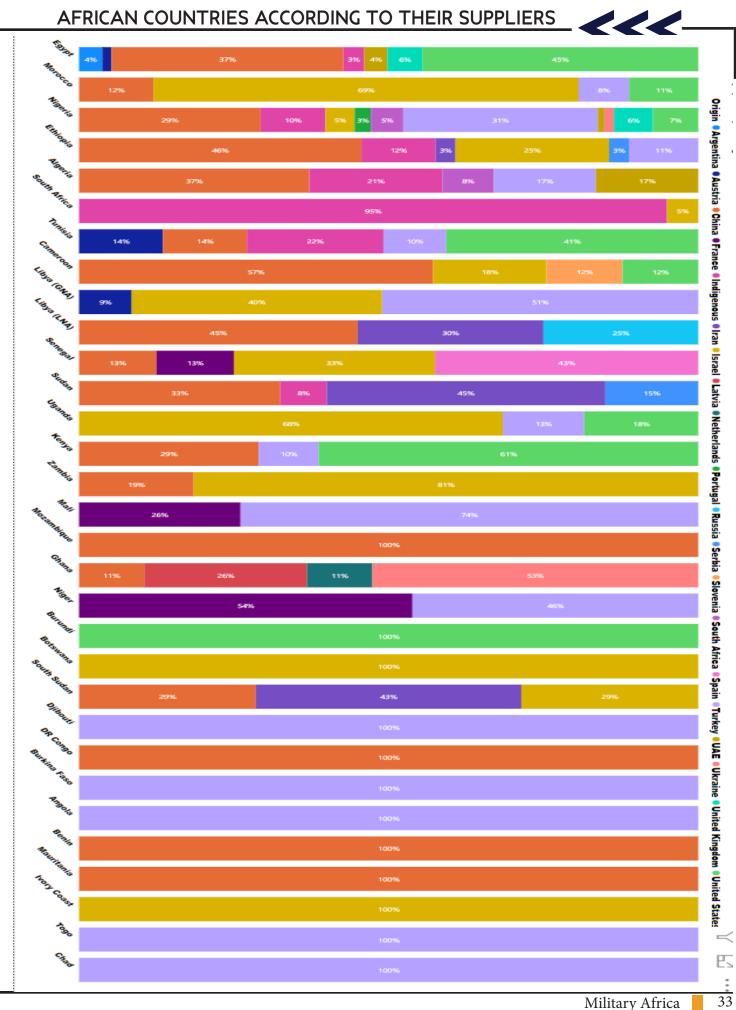
| SUPPLIER     | 1                      | 2                       | 3                    | 4                     | 5                 |
|--------------|------------------------|-------------------------|----------------------|-----------------------|-------------------|
| CHINA        | Nigeria <b>6 33 39</b> | Mozambique<br><b>57</b> | Ethiopia  26 8 9     | Egypt <b>28 4 5</b>   | Algeria 27 4      |
| ISRAEL       | Morocco <b>7</b>       | Ethiopia 28 3           | Uganda 2 24          | Zambia  8 4           | Libya (GNA)       |
| USA          | Egypt <b>63</b>        | Morocco                 | Tunisia 20 4         | Kenya<br><b>19</b>    | Nigeria  6 8      |
| TURKEY       | Nigeria 45 3 4         | Libya (GNA)  4 20       | Algeria <b>20</b>    | Morocco               | Mali<br><b>17</b> |
| INDIGENOUS   | South Africa 62 13 19  | Algeria 23 3            | Nigeria 6 14         | Ethiopia<br><b>15</b> | Tunisia 13        |
| IRAN         | Sudan <b>2 12 4</b>    | Libya (LNA)  12         | Ethiopia<br><b>4</b> | South Sudan           |                   |
| UAE          | Algeria 20             | Egypt 10                | Nigeria<br><b>2</b>  |                       |                   |
| UK           | Egypt<br><b>15</b>     | Nigeria  12             |                      |                       |                   |
| SOUTH AFRICA | Nigeria<br><b>10</b>   | Algeria<br><b>10</b>    |                      |                       |                   |
| FRANCE       | Niger<br><b>7</b>      | Mali<br><b>6</b>        | Senegal<br><b>5</b>  |                       |                   |
| SPAIN        | Senegal                |                         |                      |                       |                   |
| AUSTRIA      | Tunisia<br>8           | Egypt<br><b>4</b>       | Libya (GNA)          |                       |                   |
| UKRAINE      | Ghana<br>10            | Nigeria<br><b>3</b>     |                      |                       |                   |
| ARGENTINA    | Egypt                  |                         |                      |                       |                   |
| RUSSIA       | Nigeria<br>10          |                         |                      |                       |                   |
| SERBIA       | Sudan<br>6             | Ethiopia<br><b>4</b>    |                      |                       |                   |
| SLOVENIA     | Cameroon <b>6</b>      |                         |                      |                       |                   |
| LATVIA       | Ghana<br><b>5</b>      |                         |                      |                       |                   |
| PORTUGAL     | Nigeria<br><b>5</b>    |                         |                      |                       |                   |
| NETHERLANDS  | Ghana<br><b>2</b>      |                         |                      |                       |                   |
|              |                        |                         |                      |                       |                   |

# TABULAR REPRESENTATION BY SUPPLIER **COUNTRY AND TYPE**

TYPE

| SUPPLIER     | 1                      | 2                       | 3                       | 4                     | 5                        |
|--------------|------------------------|-------------------------|-------------------------|-----------------------|--------------------------|
| CHINA        | Nigeria 9              | Mozambique <b>57</b>    | Ethiopia <b>15 20 8</b> | Egypt <b>32</b>       | Algeria 16 5 10          |
| ISRAEL       | Morocco<br>160         | Ethiopia 25 6           | Uganda<br><b>26</b>     | Zambia<br><b>22</b>   | Libya (GNA)<br><b>19</b> |
| USA          | Egypt<br><b>119</b>    | Morocco<br>26           | Tunisia 24              | Kenya<br><b>19</b>    | Nigeria 11 3             |
| TURKEY       | Nigeria <b>36 15 5</b> | Libya (GNA) <b>20 4</b> | Algeria 20              | Morocco               | Mali<br><b>17</b>        |
| INDIGENOUS   | South Africa  94       | Algeria 3               | Nigeria 17 3            | Ethiopia<br><b>15</b> | Tunisia 13               |
| IRAN         | Sudan 18               | Libya (LNA)             | Ethiopia<br><b>4</b>    | South Sudan           |                          |
| UAE          | Algeria<br><b>20</b>   | Egypt <b>10</b>         | Nigeria<br><b>2</b>     |                       |                          |
| UK           | Egypt<br><b>15</b>     | Nigeria 12              |                         |                       |                          |
| SOUTH AFRICA | Algeria<br><b>10</b>   | Nigeria<br><b>10</b>    |                         |                       |                          |
| FRANCE       | Niger<br><b>7</b>      | Mali<br><b>6</b>        | Senegal<br><b>5</b>     |                       |                          |
| SPAIN        | Senegal 17             |                         |                         |                       |                          |
| AUSTRIA      | Tunisia<br><b>8</b>    | Egypt <b>4</b>          | Libya (GNA) <b>4</b>    |                       |                          |
| UKRAINE      | Ghana<br><b>10</b>     | Nigeria<br><b>3</b>     |                         |                       |                          |
| ARGENTINA    | Egypt<br><b>10</b>     |                         |                         |                       |                          |
| RUSSIA       | Libya (LNA)            |                         |                         |                       |                          |
| SERBIA       | Sudan<br><b>6</b>      | Ethiopia<br><b>4</b>    |                         |                       |                          |
| SLOVENIA     | Cameroon<br>6          |                         |                         |                       |                          |
| LATVIA       | Ghana<br><b>5</b>      |                         |                         |                       |                          |
| PORTUGAL     | Nigeria<br><b>5</b>    |                         |                         |                       |                          |
| NETHERLANDS  | Ghana<br><b>2</b>      |                         |                         |                       |                          |
|              |                        |                         |                         |                       |                          |
|              |                        |                         |                         | 3 5.1.                | taury Africa 31          |

#### AFRICA'S DRONE PROCUREMENT DATA **Bluebird Aerosystems** AVIC Baykar Denel ឡ **BAE Systems** 8 **Elbit Systems** CASC **Northrob Grumman** Aerovironment **Turkish Aerospace Industries** Israeli erospace Industries **ADCOM Systems** 32 Fly BVLOS **Aeronautics Defence Systems** 29 **Quds Industries** 28 **ASN Technology Group** 24 **Boeing Insitu** 23 **AFIT** CSIR 20 **CRTI** \$ **Embention** 7 REGION Mugin **Schiebel East Africa Meggit Defense System** 햐 CASIC STM **North Africa Aero Technologies Industries** ವ **Hubel Smart Seem Technology Co.** ವ **UKRSpecsystems** ಪ **Southern Africa AUTEL Robotics** 2 COMTRAC 2 Davi 12 **West Africa General Atomic** 12 **HESA** 12 ZeroTech 12 **Paramount Group** ⇉ ASISGUARD 6 **Egypt Army** 6 STC 6 TR Bow Tech ð YugoImport ð **SageTown Technologies** S-PLANE **Star Aviation** Delair BlueBird Aerosystems has supplied the highest Number of drones AAI CORP at 181, followed by AVIC at 180 units, and Baykar at 98. ALTI had Aeraccess the lowest Number of drones supplied at just 1. C-Astral BlueBird Aerosystems accounted for 11.80% of Number of drones DB supplied to African countries. ICER Across all 67 Manufacturers, Number of drones ranged from 1 to Milkor 181 supplied. **Unmanned Aeronautics** North Africa had the highest Number of drones procured at 822, Digital Eagle **ELISTAIR** followed by West Africa, East Africa, and Southern Africa. **EOS Technology** FIXAR **Fly Dragon Drone Tech HAVELSAN TEKEVA** Ziyan UAV Norinco **Arab Organization Industries, MTC** Milyas OMPHobby N Vertical Technologies ■ N ALTI -Trusted And Assured

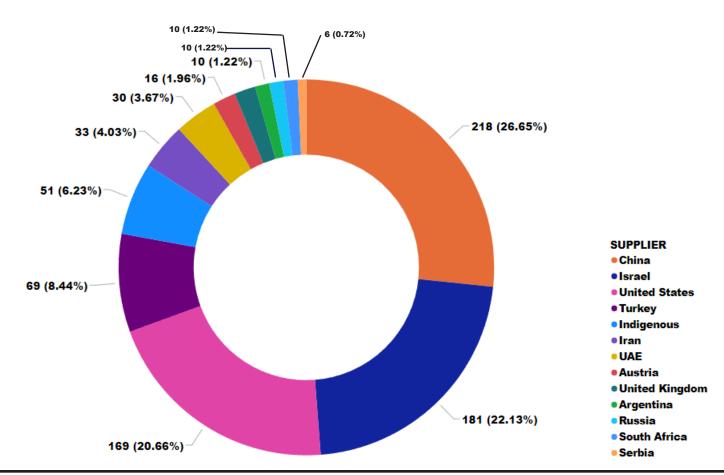




## Drone imports by Region

### **NORTH AFRICA**

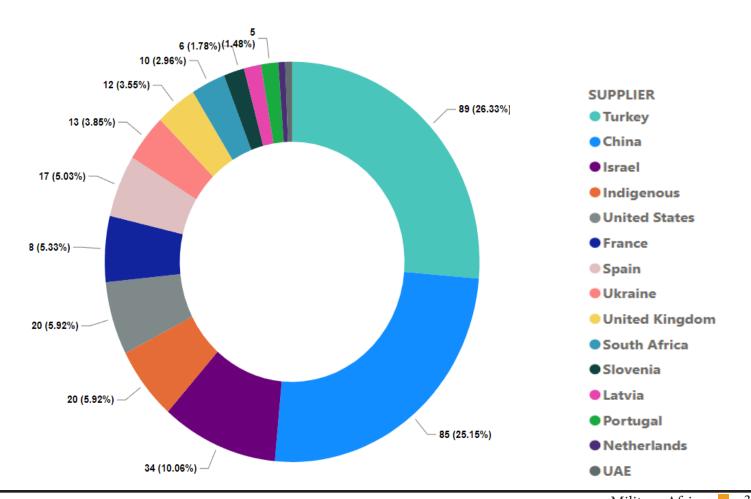
- In North Africa, China has supplied the highest number of drones at 218, followed by Israel and United States. Serbia had the lowest Sum of NUMBER at 6.
- 2. China accounted for 26.65% all drones supplied.
- 3. Due to the volatile nature of the region, most countries prefer fixed-wing, long-range combat drones like the CH-3, CH-4, CH-5, and Wing-Loong-series drones to transverse the region and provide round-the-clock surveilance capabilities.
- 4. Israel can be seen to provide the second largest quantity simply due to their strategic relationship with Morocco. Israel supplied a large number of tactical Wonder B, and Thunder B drones. currently used for surveillance in the troubled Western Sahara axis.
- 5. The United States is among the top arms supplier in North Africa, and has provided small tactical drones to Tunisia, Morocco, and Egypt.





#### **WEST AFRICA**

- 1. In West Africa, Turkey has supplied 89 drones, followed by China (85) and Israel (34).
- 2. Turkey accounted for 26.33% of all drones supplied to West Africa.
- 3. Turkey accounts for a large number of drones, due to the recent marketing drive by Turkish President Recep Tayyip Erdocan.
- 4. West African countries faces several security challenges like kidnapping, banditry, and islamist jihadist, so they require long-range armed drones, as well as tactical UAVs for combat and surveillance purposes. Such as the ANKA, Bayrakter TB2, and SONGER.
- 5. Chinese long-range drones are operated by mostly Nigerian forces in the region.

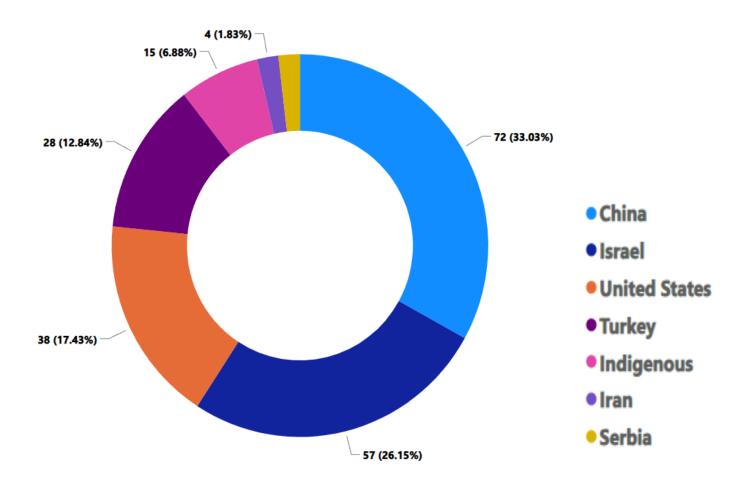




# Drone imports by Region

### **EAST AFRICA**

- 1. China has supplied the largest number of drones at 72, followed by Israel (57) and United States (38).
- 2. China accounted for 33.03% of all drones supplied in East Africa.
- 3. China's affordable drones are preferred due to cost-effectiveness, as the countries in he region are facing insurgency and terrorism. (Tygray, Al Shabaab).
- 4. Historically, Israel and the United States have funded and provided military equipment to countries in this region, hence they operate a large amount of Israeli drones.
- 5. Countries in this region prefers tactical drones for battlefield surveillance. Drones in this category are operated by special forces in the field.

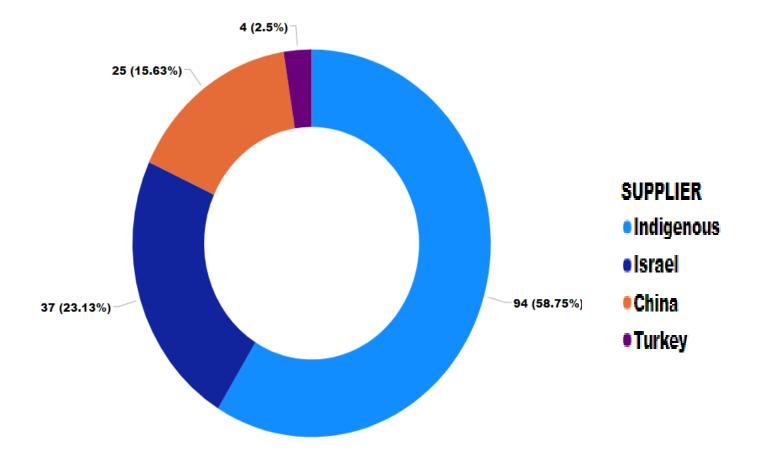


### Drone imports by Region

### **SOUTHERN AFRICA**



- 1. Indigenously made drones has the highest number supplied at 94, followed by Israel, China, and Turkey.
- 2. Indigenous developed drones accounted for 58.75% of all drones procured.
- 3. Most countries in this region particularly South Africa are looking inwards for its unmanned systems requirements.
- 4. Tactical unarmed drones are preferred in Southern Africa. They are mostly tasked for ISR-duties, as well as electronic intelligence (ELINT).
- 5. Due to hisorical relationship with Israel, Southern Africa has procured about 37 drones for its ISR requirement.



#### AFRICA'S DRONE PROCUREMENT DATA Bayraktar TB2 88 Wander B 80 Wing Loong I 72 **Bramor C4EYE** 6 Thunder B 70 DB-2 6 R4E-50 SkyEye 66 GhostRay 6 Wing Loong II 66 Hawker Q800X 6 324 Scarab 56 Orbiter-2 6 Rainbow CH-4 38 Silver Arrow Micro-V 6 Hermes 900 32 Tsaigumi drone 6 30 **Delta Suas** WanderB mini-UAS 6 30 RQ-11 Raven AFAQ 1 & 3 5 ANKA-S 25 AR3 VTOL 5 ASN-209 24 BAHA 5 Skua target drone 24 Bateleur 5 RQ-20 Puma 23 Davi I 5 Scan Eagle 23 Elistair Orion 5 VTOL Fixed Wing UAV 23 **Epsilon SWIFT** 5 Rainbow CH-3 22 5 Fixar 007 Skylark 2 22 5 Fly Dragon Indiza 20 Hungwe 5 20 Rainbow CH-5 Mavic Pro 5 Yabhon United 40 20 Scout 5 M600WP 17 Seeker 400 5 5 Strix 400 Mugin commercial UAV 17 Super NasNas 5 Mohajer-4 16 **V380PRO** 5 S-100 Camcopter 16 Vulture 5 SpyLite 16 YFT-CZ33 5 15 Aerostar Ziyan Blowfish 5 15 Boomerang 4 Akinci Meggitt BTT-3 Banshee 15 Amebo drone Aksungur 14 AR-500B 4 Seeker 200 14 Epsilon EP 55 4 CTS Ovation 12 Gulma drone 4 Yabhon Flash-20 12 Hermes 450 4 ZT-10V 12 Kargu suicide drone 4 Harop suicide drone 11 Mohajer-2 4 Armed VTOL 10 MQ-9 4 HW-V230 10 Seeker I 4 Inspire 2 10 Type PMR-50 4 10 Lipán M3 AL fajer L-10 3 3 Orlan-10 10 **AMEL 1-480** Amel 300 3 PD-2 10 AMEL HY200 Phantom 4 3 10 CCS-01 3 Seeker II 10 E-JUNE ISR 3 Songar armed drone 10 Harfang/Heron 3 10 Togan Ichoku 3 ZT-3V 10 MA380 3 CHILONG 11 (CL-11) VTO... 9 **MA80** 3 Harpy 8 Modular UAV 3 Matrice 600 Pro 8 Negash 3 8 Mohajer-6 N-Raven swarming UAV 3 MQ-1 Predator 8 NUT (NEUTH) 3 NasNas 8 PD-1 Orbiter-3 8 Star Tiltrotor SS-V330 PRO 8 THEBES-30 ISR 3 Ababil-3 7 Zagil-3 3 Davi II 7 Ababil-2 2 DT26 Surveillance drones DeltaQuad Pro 2 Aerosonde 4.7 6 Multiflyer 2 Amel 700 6 ZMO-120 2 Bramor C4EYE ALTI Transition 6





#### Bayrakter TB2

The Bayraktar TB2 is a medium-altitude long-endurance (MALE) unmanned combat aerial vehicle (UCAV) capable of remotely controlled or autonomous flight operations. It is manufactured by the Turkish company Baykar Makina Sanayi ve Ticaret A.Ş. Each TB2 is configured with six aerial vehicles, two ground control stations, three ground data terminals (GDT), two remote video terminals (RVT) and ground support equipment. Eight African countries operate the TB-2.



#### WanderB VTOL UAV

WanderB vertical take-off and landing (VTOL) mini unmanned aerial vehicle (UAV) is a fully autonomous drone developed by BlueBird Aero Systems, an unmanned air systems manufacturer based in Israel.

The UAV is intended to provide intelligence, surveillance, target acquisition and reconnaissance (ISTAR) mission capability to defence, security and paramilitary forces.



#### Chengdu GJ-1 (Wing Loong 1)

The Chengdu GJ-1, also known as Wing Loong 1, is a Medium-Altitude Long-Endurance (MALE) unmanned aerial vehicle (UAV), developed by the Chengdu Aircraft Industry Group in the People's Republic of China. Intended for use as a surveillance and aerial reconnaissance platform, the Pterodactyl I is capable of being fitted with air-to-surface weapons for use in an unmanned combat aerial vehicle (UCAV) role.



#### BAE Systems SkyEye

The BAE Systems SkyEye is a reconnaissance UAV developed in the United States in the early 1970s by Developmental Sciences Inc, later called Developmental Sciences Corporation, a division of Lear Astronics Corporation and ultimately part of BAE Systems.

The R4E SkyEye is in service with a number of countries, including Egypt and Morocco, for battlefield surveillance. The SkyEye can carry two underwing stores along with its other payload. It lands on a retractable centerline skid or can be recovered by parachute.



### Wing Loong II

The Wing Loong II is an improved version of the Wing Loong 1 Unmanned Aerial Vehicle in the category of MALE (Medium-Altitude Long-Endurance) designed and manufactured in China by the Aviation Industry Corporation of China (AVIC). Compared with Wing Loong I, the Wing Loong II has an optimized aerodynamic design, an improved airframe and upgraded airborne systems, featuring better capabilities in terms of flight, payload and information capacity.



#### Teledyne Ryan Model 324 Scarab

The Teledyne Ryan Model 324 Scarab is a jet-powered reconnaissance UAV developed in the United States in the 1980s for sale to Egypt. The Scarab is a medium-range reconnaissance asset, similar in operational concept to the old Ryan FireFly UAVs, but implemented with improved technology. It was designed to Egyptian Air Force requirements, and was first flown in 1988. 56 were delivered and the type remains in service. The aircraft's guidance is pre-programmed, but a radio-control backup system is provided.



#### Rainbow CH-4

The CH-4 is a mixed attack and reconnaissance system with provisions for 6 weapons and a payload of up to 250 to 345 kg. CH-4 is capable of firing air-to-ground missile from altitude of 5,000 meters (~16,400 feet), therefore the aircraft can stay outside of effective range of most anti-aircraft guns. The Caihong-4, CH-4, is a long endurance unmanned aerial vehicle (UAV) featuring a battery life of 40 hours. The aircraft has been designed to perform both reconnaissance and strike missions releasing guided bombs and missiles.



#### Elbit Systems Hermes 900 Kochav ("Star")

The Elbit Systems Hermes 900 Kochav ("Star") is an Israeli medium-size, multi-payload, medium-altitude long-endurance unmanned aerial vehicle designed for tactical missions. It is a successor to the Hermes 450 series of drones, one of the most widely used military drones in the world. It has an endurance of over 30 hours and can fly at a maximum altitude of 30,000 feet (9,100 m), with a primary mission of reconnaissance, surveillance and communications relay.



#### Delta VTOL sUAS

Delta is an autonomous sUAS with VTOL capability, specially designed to meet the requirements of industrial and government applications. Its unique design brings together fixed-wings efficiency, and VTOL capability of multirotor platforms. Delta UAV is among the safest VTOL systems in the world with its multiple-stage safety features like shock absorbing materials, fan-in-wing design and Quad-Chute safety system.



### SOME INDIGENOUS DRONE DEVELOPMENT/ PROJECTS

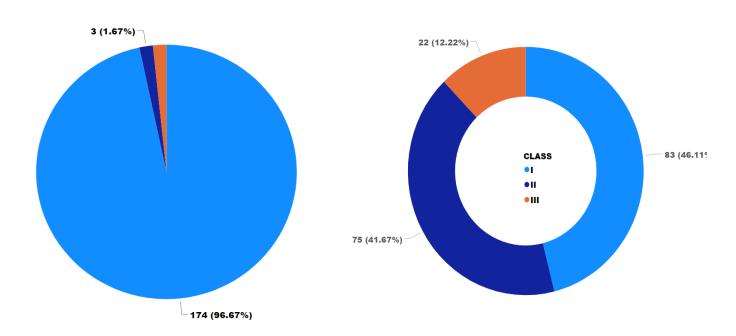
The development of indigenous drones in Africa has seen significant progress, with 35 drones either in operation or beyond the prototype stage. These UAVs (Unmanned Aerial Vehicles) have been developed across seven African countries by thirteen different companies, showcasing the continent's growing expertise and innovation in this field.

The majority of these drones are of the fixed-wing type, totaling 174 units, while rotary-wing and VTOL (Vertical Take-Off and Landing) fixed-wing types are less common, with 3 units each. The classification of these drones varies, with 83 falling under class 1, 75 under class 2, and 22 under class 3, indicating a diverse range of capabilities and potential applications.

Regionally, Southern Africa leads in produc-

tion with 94 units across 12 models, followed by North Africa with 51 units from 14 models. West Africa and East Africa are also contributors, with 20 and 15 units produced, respectively.

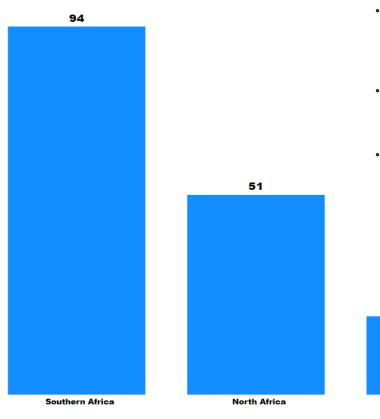
Among manufacturers, Denel stands out with 57 drone units, followed by the Air Force Institute of Technology (AFIT) and the Council for Scientific and Industrial Research (CSIR), each accounting for 20 units. Other notable contributors include CRTI with 17 units, Paramount Group with 11 units, and Star Aviation with 9 units. This data not only reflects the technological advancements within the continent but also the potential for increased self-reliance in security and commercial sectors through the use of indigenous UAV technology.



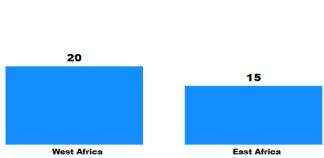
- As explained earlier, fixed-wing drones are the preferred type across Africa due to their strategic capabilities.
- Also, Class I and Class II drones are being developed due to their tactical uses on the battlefield.

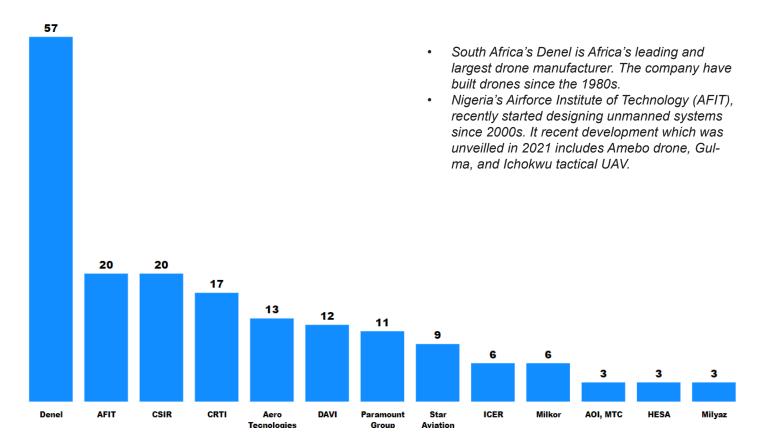
TYPE
Fixed Wing
Rotary Wing
VTOL Fixed Wing





- South Africa was an early adopter of unmanned aerial vehicles and the military pushed drone development from the 1970. Refined by combat experience, the drone industry blosomed in the 80s.
- North African countries are not only enthusiastic importers of weapons. They are also increasingly aiming to create indigenous defence capabilities and become exporters themselves.







### SOME INDIGENOUS DRONE DEVELOPMENT/ PROJECTS



Kenyan reversed engineered Israeli Aerostar drone called "TAI," built with the help of Turkish engineers. It was first unveiled in 2021 when Kenyan President Uhuru visited the Army's KWS Manyani Camp.

The TAI drone was deployed during the capture of Kismayu. Not much is know about the fate of the drone



EJune-30 SW, is 8.9m-long and is equipped with automated take-off and landing capabilities. It has a 12m wingspan and maximum take-off weight of 1400kg. The EJune-30 SW can reach speeds of 260kph, and 7000m in altitude, with 24 hours of endurance time. This drone is produced by Egypt's Ministry of Military Production using complex industrial robots. Externally, the EJune-30 resembles the Emirati Yabhon United 40 unmanned aerial vehicle. It is highly probable that this is the Egyptian version of the UAV after technology transfer from the UAE to Egypt.



In May 2012, Egypt collaborated with foreign defence manufacturer to build ASN-209 drone, under the Egyptian military.

ASN-209 UAV is a Chinese-made drone developed by Xi'an Aisheng Technology Group Co, also known as Northwestern Polytechnic University.



The WanderB was acquired in both the UAV and RC training variant (which can be discerned by the lack of a camera on the latter). In the latter role they are designated as MDAV-1 in Ethiopian service, and it is possible that the RC variant has entered local production as well.

However, much like the Aerostar UAV very little is known about their past usage and current service status.





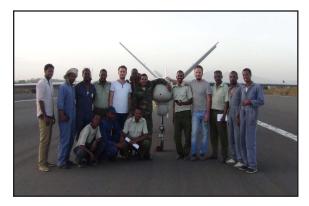
The Tsaigumi UAV, developed through collaboration between the Nigerian Air Force Research and Development Centre in Kaduna and the Portuguese-based UAVision, represents a crucial advancement in Nigeria's unmanned aerial capabilities.

This particular drone project gained prominence as Nigeria actively participates in counter-terrorism efforts.



The Amel-series is an Algerian design developed in October 2013 by Star Aviation. The Amel 300 was developed in 2016, and manufactured by Center Industrial Research Technology (CRTI).

It is a light-weight design, made with fiberglass and carbon so as not to be detected by radar.



Launched in 2010, Ethiopian engineers first attem[t to develop a MALE UAV, with Turkish company Milyaz. A prototype was displayed in 2010.

The development has since been abandoned after the country procured other matured drones from Iran, and Turkey.



The Nasnas (in French Fouineur) is a small reconnaissance drone designed by the Tunisian company TATI (Tunisia Aero Technologies Industries). The study of the Nasnas Mk 1 lasted 6 months and the first flight took place in August 1998. The wings are high, the tail is twin-girder. The engine developing a power of 22 horsepower is positioned at the rear of the fuse-lage.

The Nasnas Mk 1 has a payload of 15 kg which allows it to carry, a FLIR ball or a TV camera. It has an endurance of 11 hours at a speed of 170 km/h. The Nasnas is equipped with a direct link (LOS: Line of sight) allowing command and control of the device up to a range of 200 km.



### OPPORTUNITIES



ased on the information above, Here is a possible market insight for companies looking to sell military drones in Africa:

Africa is a continent with diverse security challenges, ranging from terrorism, insurgency, civil war, border disputes, and wildlife poaching. These challenges have created a demand for military drones, which can provide intelligence, surveillance, reconnaissance, and strike capabilities for African armed forces. The use of military drones in Africa has sharply increased in recent years, with at least 21 countries operating drones for military purposes.

The most viable markets for the drone industry in Africa are the countries that have the most types and quantity of drones purchased, as well as the countries that face the most security threats. Based on the drone procurement data, Nigeria, Algeria, and Ethiopia are the top three countries in terms of drone types purchased by year, with Nigeria leading the pack with 28 types. These countries have been using drones for various missions, such

as combating terrorism, monitoring borders, and supporting peacekeeping operations. Nigeria, for instance, has acquired drones from China, Israel, and the United States, and has also developed its own drones, such as the Gulma and the Tsaigumi.

Another factor that determines the viability of the market is the type and class of drones that are in demand. According to the data, Fixed Wing drones are the most dominant type of drones in Africa, accounting for more than 94% of the total quantity purchased. Fixed Wing drones are suitable for long-endurance and long-range missions, such as search-and-rescue, maritime patrol, and airstrikes. Class II drones are the most prevalent class of drones in Africa, followed by Class I and Class III. Class II drones are medium-sized drones that can carry payloads of up to 150 kg and fly at altitudes of up to 5,000 meters.

The third factor that influences the market potential is the manufacturer and supplier of the drones. According to the data, Israeli Bluebird Aero, Chinese AVIC, and Turkish Bayker are the top three



manufacturers of drones in Africa, with Bluebird Aero having the highest quantity of drones purchased at 150 units. These manufacturers have established a strong presence and reputation in the continent, and have supplied drones to various countries, such as South Africa, Kenya, Morocco, Tunisia, and Algeria. CASC, AVIC, and Baykar are also the most widely distributed manufacturers of drones in Africa, with CASC having the highest number of countries that purchased its drones at 13.

The fourth factor that affects the market outlook is the trend and forecast of the drone procurement in Africa. According to the data, 2022 is the peak year for drone procurement in Africa, with 119 units purchased, which is nearly 28% of the total quantity of drones purchased. This indicates that there is a growing demand and interest for drones in Africa, especially as the security situation remains volatile and unpredictable. Moreover, according to an article by Military Africa, militaries in Africa are increasingly relying on combat drones to carry out precision strikes, surveillance, reconnaissance, and intelligence against a wide range of threats. The article also

"For those who seek to enrich their research and elevate their market position, this dataset is an indispensable tool."

states that the use of drones is expected to increase in the future, as technology becomes more advanced and affordable.

In conclusion, the market insight for companies looking to sell military drones in Africa is that there is a high potential and opportunity for growth and expansion, as the continent faces various security challenges that require effective and efficient solutions. The most viable markets are the countries that have the most types and quantity of drones purchased, such as Nigeria, Algeria, and Ethiopia, as well as the countries that face the most security threats, such as Somalia, Mali, and Libya. The most in-demand type and class of drones are Fixed Wing and Class II drones, which can perform long-endurance and long-range missions. The most successful and popular manufacturers and suppliers of drones are Bluebird Aero, AVIC, and CASC, which have established a strong presence and reputation in the continent. The trend and forecast of the drone procurement in Africa is positive and optimistic, as the demand and interest for drones are increasing, and the technology is becoming more sophisticated and accessible.



### **SUMMARY**

he trajectory of Unmanned Aerial Vehicles (UAVs), commonly known as drones, in Africa is on a remarkable ascent, with implications that are both promising and concerning. The increasing utilization of these systems by African militaries underscores a shift towards more technologically advanced warfare and surveillance methods. This trend is not isolated to major powers with deep pockets; even smaller states and non-state actors are finding accessible, cost-effective means to deploy less sophisticated but strategically effective UAVs in conflict zones.

The proliferation of drones across the continent has been facilitated by a lack of stringent regulatory frameworks, allowing a diverse array of systems to be employed in various conflicts. This expansion is not expected to wane but to intensify, with technological advancements making drones more autonomous and capable. The appeal of UAVs lies in their ability to conduct surveillance and execute lethal operations with minimal risk to personnel, a factor that has not gone unnoticed by states seeking to protect their interests with a degree of deniability, particularly in the ambiguous realm of 'grey zone' warfare.

However, this rapid growth in drone usage raises critical questions about the future of security and warfare in Africa. The doctrine of national security drives states to relentlessly pursue technological advancements, inadvertently fueling an arms race that could destabilize the region. The ethical and legal implications of autonomous military systems are profound, with the potential to alter the principles of warfare and accountability.

As African nations continue to invest in and deploy UAVs, the need for comprehensive policies and international cooperation becomes paramount to ensure that these technologies are used responsibly and do not exacerbate existing tensions. The future outlook of drones in Africa is thus a tapestry of innovation, strategic advantage, and complex geopolitical dynamics, woven together by the threads of technological progress and the unyielding pursuit of security. The continent stands at a crossroads, where the decisions made today will shape the landscape of military engagement and regional stability for years to come.



# **GET THE COMPLETE DATASET**

In the rapidly evolving landscape of military technology, the ability to stay ahead of the curve is not just an advantage, it's a necessity. Military Africa's comprehensive drone dataset is the key to unlocking a wealth of strategic insights for drone manufacturers, suppliers, and designers. This meticulously curated collection is more than just numbers and dates; it's a gateway to understanding the dynamics of the African UAV market, from historical trends to current demands.

The dataset, presented in an accessible Excel spreadsheet, is the culmination of years of dedicated research into open-source literature, providing a level of detail and depth that is unparalleled. With over 180 equipment entries and 1534 units cataloged, it offers a granular view of the market that is critical for any entity looking to gain a competitive edge. The information on suppliers, procurement dates, and other vital data points are not just facts, but the building blocks for a robust market analysis.

For those who seek to enrich their research and elevate their market position, this dataset is an indispensable tool. It allows for a level of customization and detailed analysis that pre-packaged reports cannot match. Users can delve into the data, draw their own conclusions, and tailor their strategies to meet the unique needs of their business. This is not just about keeping pace with competitors; it's about setting the pace and identifying opportunities that others might miss.

The African defence market is a complex and multifaceted arena where the right information can make all the difference. By investing in Military Africa's drone dataset, you are not just purchasing data; you are securing a lens through which the entire landscape of defence market information becomes clear. This is your chance to be at the forefront of data-driven decision-making, to spot emerging trends, and to anticipate the moves of your competitors.

In a world where timing is everything, the ability to quickly interpret and act on reliable data is paramount. Military Africa's drone dataset doesn't just offer a complete view; it offers the clarity and insight needed to navigate the market with confidence. Make the intelligent choice, and let this dataset be the foundation of your strategic planning and the catalyst for your success in the defence industry.



## **CONTACT US**

Request for the full dataset

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- +234 810 36 89898
- www.Military.Africa

