Contenido Informe España Julio 2020

Spain:
Section 1 - Data

	Local	USD
Defense Spending (2020)	8,584 million	9,677.6 million
Total Forecast Spending (2021-2025)	40,458 million	45,612.2 million
Avg Annual Defense (2021-2025)	8,091.6 million	9,122.4 million
CAGR (2020-2025)	-1.1%	

Outlook

- Spain confronts worsening COVID-19 epidemic in March 2020, which in turn cripples the economic picture for the year with recession as deep as 2.5-4.5 percent of GDP predicted at the outbreak of the pandemic in Spain
- Defense budget projections for the coming five-year period now in flux due to economic uncertainty but should stabilize by 2023 and begin return to slow growth in 2024-2025
- Spanish Ministry of Defense signs contract with Navantia on April 23, 2019, covering construction for a new class of five F-110 multimission frigates at an estimated cost of EUR4.317 billion ($4.83 billion) with payments to be made annually through 2032

Market Attractiveness

The following table presents a broad analytical framework for examining Spain's defense market. It assesses the market in terms of Industry, Military Posture, Acquisition & Budget, Government, and Economy (IMAGE), with a focus on how these areas might impact defense acquisition by Spain over the coming years. It is presented from the perspective of a defense contractor looking to sell equipment to Spain. Factors that could benefit sales are presented as opportunities, while factors that could potentially reduce sales are presented as risks.

IMAGE Matrix

	Description	Opportunities/Strengths	Risks/Weaknesses
Industry	National policies and defense industry strengths that affect competition	• Domestic industry plays a role within larger multination European projects, thus leaving state to rely on export orders to meet some needs	• Broad defense industrial base capable of meeting state requirements for many projects
Military Posture	Internal and external threats that drive purchases	• Geographic location at mouth of Mediterranean Sea and island possessions make Spain central to European/NATO defense planning	• Years of spending cuts and shrinking the armed forces have resulted in downsized requirements and capabilities
Acquisition & Budget	Impact of budget and contract process transparency on ease of selling to government	• Spain has 11+ ongoing or future major defense procurement programs, plus upcoming modernization initiatives • Spain retains a limited three-service broad-spectrum military capability that requires modernization cycles	• Extra budgetary funding for defense projects undertaken by government decree banned by Constitutional Court in 2016
Government	Stability, elections, and corruption and their effect on business environment	• Democratic elections are held, with peaceful transfers of power observed	• Political environment has remained very divided, with traditional two main parties ceding some of electorate to newer parties
Economy	Impact of economic environment on the government's ability to spend	• Liberalized, free trade economy that is part of the eurozone	• Unemployment remains persistently high • Public debt is around 100 percent of GDP

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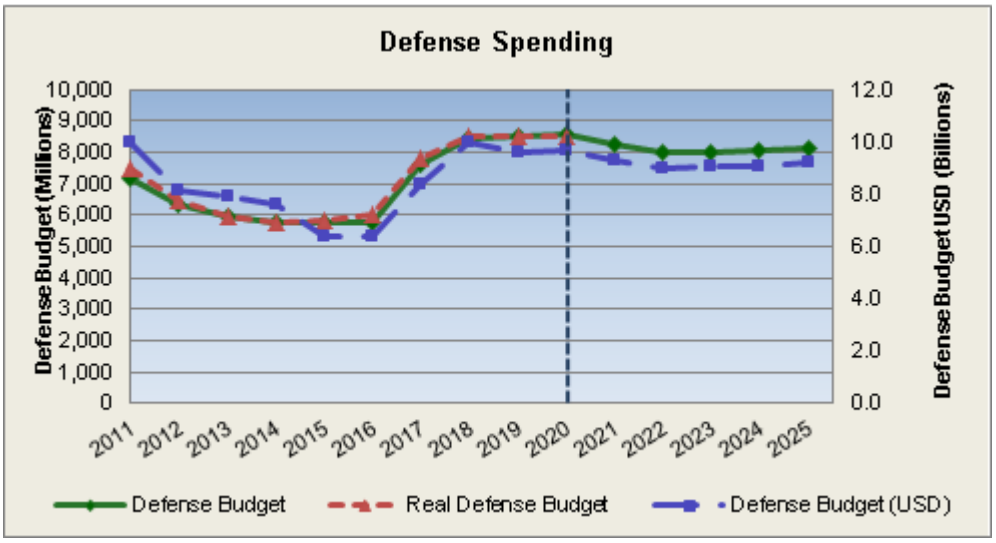
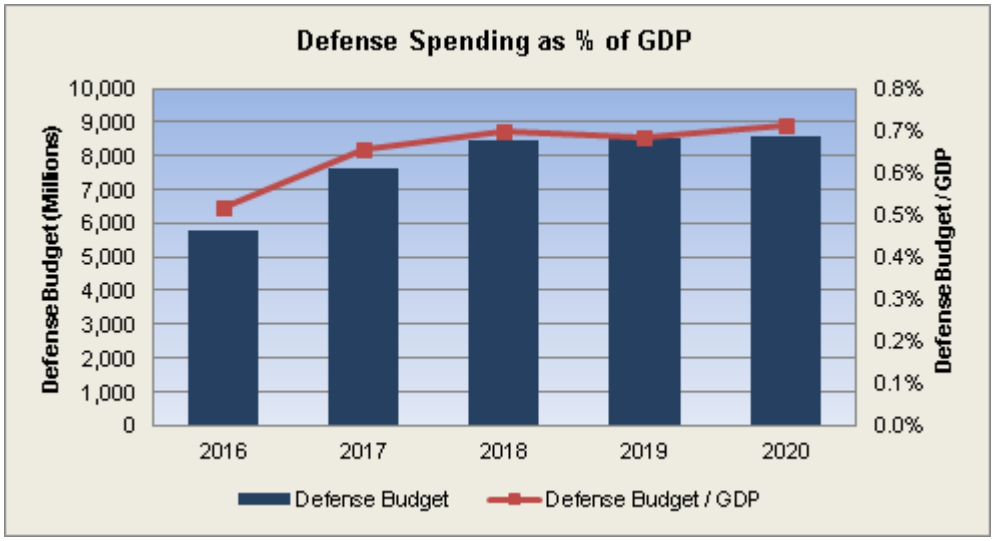
Military Budget





Defense Spending. Spanish defense investment over two decades has reflected a whipsaw driven by economic realities. When Spain's economy – and that of the larger eurozone – has experienced healthy stretches, the nominal topline defense budget has undergone a parallel track. During periods of slow growth or outright recession, the defense budget has suffered.

Above all, however, Spain has invested less in terms of national wealth than many of its partners in the NATO Alliance.

Though it is among the seven or eight largest defense providers in Europe, Spain continues to spend far below what is expected from a NATO member (a minimum of 2 percent of GDP annually). The last year Spanish defense allocations reached even 1 percent of GDP was 1998, when defense spending represented 1.02 percent of GDP. For fiscal year 2019, Spain earmarked about 0.7 percent of GDP for defense.

The former Rajoy government (2011-2018) sought to significantly uplift military earmarks, with then-Defense Minister Maria Dolores de Cospedal stating to a parliamentary defense commission on January 25, 2018, that the government intended to boost the topline budgetary figure to EUR18 billion by 2024.

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While achieving this level of expenditure would not bring Spain in line with the NATO minimum standard of 2 percent of GDP, it would bring the defense budget up to 1.53 percent of GDP – a standard Spain would then retain on condition of national economic performance. This ambitious goal now appears destined for the backburner as Spain's government has since changed hands – being led by consecutive left-leaning minority coalitions under Pedro Sanchez – and now confronts the effects of the novel coronavirus (COVID-19).

The outbreak of the pandemic hits Spanish defense particularly hard as annual budgets had finally begun to experience annual year-on-year growth from 2016 onwards, following an eight-year stretch of cuts or flat-lining expenditures that decimated topline figures.

After the 2008 economic collapse, the Spanish government looked first and foremost to defense as an area from which to reap savings. An initial defense budget cut in 2009 (a 3.9 percent drop) occurred despite the former Socialist government's fiscal stimulus package – one of the most expansive in all of Europe that year relative to the size of the country's economy.

This spendthrift effort to provide the country with a soft landing during a recession proved a complete failure, leaving Spain with a ballooning debt-to-GDP ratio (from 36 percent in 2007 to 99 percent by 2017), a large structural deficit (11.1 percent in 2009), and a worsening credit situation.

As a result of this disastrous approach, the ruling Socialists were left with little recourse but to impose spending cuts, which hit the defense budget hard enough that, by 2014, the cumulative year-on-year reduction from the baseline level of 2008 had totaled EUR8.223 billion, or 101 percent of the 2008 defense budget figure.

The result of the prolonged period of defense austerity was a combined 30 percent drop from the 2008 budget allocation of EUR8.149 billion.

This stunning decline left the armed forces bereft of capitalization and modernization funds, as some 76 percent of annual Spanish military outlays are absorbed by personnel costs.

A more positive economic outlook began to emerge from 2015 to 2016, then more substantially from 2017 into 2018 when the budget grew by double-digits each year. However, the surge in funding proved more complicated in reality than it appeared on paper, as elements formerly kept off-budget such as overseas missions now became wedded to the official budget in order to provide greater transparency.

A major financial albatross for Spanish defense remains the Special Armaments Program, involving 19 major defense programs dating to the administration of the former People's Party government under José María Aznar (1996-2004). The Special Armaments Program was to run until 2025 and was designed so that payments would steadily increase as more and more equipment was brought into service.

The total cost of the Special Armaments Program falls in the area of EUR32-EUR37 billion ($43-$49 billion), and for several years, the Defense Ministry had to lean on infusions of top-up funding credits outside the core defense budget to meet its payment obligations on these programs. These totaled EUR1.78 billion in 2012, EUR877.33 million in 2013, EUR883.6 million in 2014, EUR856.4 million in 2015, and EUR716.8 million in 2016.

However, the latter installment ultimately was not paid due to a ruling by the Constitutional Court that banned the use of government decree to pay for the re-equipment programs outside the defense budget. Instead, the 2016 amount was added to the 2017 payment obligations of EUR1.11 billion and presented as a separate EUR1.8 billion tranche of funding within the FY17 defense budget to cover these outstanding payments.

As of 2018, Spain still owed EUR20 billion toward this program, with payments extended from the original 2025 end-date out to 2030.

The Socialist government signed off on a new investment package worth EUR7.331 billion ($8.306 billion) on December 14, 2018, covering defense and security programs within a multiyear period culminating in 2032. The investment package provides funding for three major Ministry of Defense projects that affect each branch of the Spanish Armed Forces.

The first involves the procurement of five F-110 multimission frigates for the Spanish Navy. The new class of warships will replace the Spanish Navy's six Santa Maria class frigates built in the early 1980s and will cost EUR4.325 billion ($4.96 billion) with payments being made between 2019 and 2032.

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The second program covers new 8x8 wheeled armored vehicles for the Spanish Army. The investment in this project comes to EUR2.1 billion ($2.38 billion) with payments running out to 2030.

The final major program involves an upgrade and modernization of the Air Force's fleet of 73 Eurofighter Typhoons. This project will cost EUR906 million ($1.027 billion) with costs covered out to 2023 under the investment package. The midlife upgrade will allow Spain to retain its Typhoon fleet through 2045.

Other projects involve the modernization of the command-and-control air system, multirole tanker transport (MRTT) refueling aircraft, NH90 naval helicopters, and modernization of the Chinook helicopter fleet.

Meanwhile, 11 major projects remain from the Special Armaments Program, including the over-budget S-80 submarine whose costs have nearly doubled. This latest 15-year modernization cycle aims to replace the 1990s-era Special Armaments Program with the remaining legacy projects from that program absorbed into the latest plan. The costs of these programs are now included in funding allocation requests.

However, with the Spanish economy headed into likely recession in 2020, the modernization cycle aims may be delayed – either pushed out further or placed in abeyance indefinitely. The uncertainty of the current health and economic environment adds to the difficulty in predicting near-term defense spending trends, but with the government infusing funds to welfare and state relief efforts to aid its citizens and select industrial sectors in the crisis period, a one- to two-year downturn is likely if previous trends are the judge. We expect the defense budget to flatline around 2023 and return to slow growth from 2024 onwards.

Additional Note on Spanish Defense Budgets: While the defense budget figures reflected in the forecast totals indicate the core defense budget, they do not include loans from the Ministry of Industry for defense research and development, and funding from "autonomous organisms (bodies) of the Ministry of Defense," which generally amounts to around EUR1.0-1.1 billion on an annual basis. Also of note is the Ministry of Finance practice of allowing the Defense Ministry to divert a portion of the costs of external operations from its budget.

Defense Spending, 2015-2019 Actual; 2020-2025 Projected

	Historical					Plan	Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Defense Budget	5,768.0	5,788.0	7,639.0	8,456.0	8,530.0	8,584.0	8,241.0	7,994.0	8,018.0	8,066.0	8,139.0
Defense Budget (USD)	$6.4	$6.4	$8.4	$10.0	$9.6	$9.7	$9.3	$9.0	$9.0	$9.1	$9.2
Defense Budget % Chg	0.4%	0.3%	32.0%	10.7%	0.9%	0.6%	-4.0%	-3.0%	0.3%	0.6%	0.9%
Real Defense Budget*	5,823.7	6,041.3	7,820.1	8,513.8	8,530.0	8,494.9	-	-	-	-	-
Real Defense Budget (USD)*	$6.6	$6.8	$8.8	$9.6	$9.6	$9.6	-	-	-	-	-
Real % Chg	0.7%	3.7%	29.4%	8.9%	0.2%	-0.4%	-	-	-	-	-
% of GDP	0.5%	0.5%	0.7%	0.7%	0.7%	0.7%	-	-	-	-	-
% of Nat. Budget	1.2%	1.2%	1.6%	1.7%	1.7%	1.6%	-	-	-	-	-

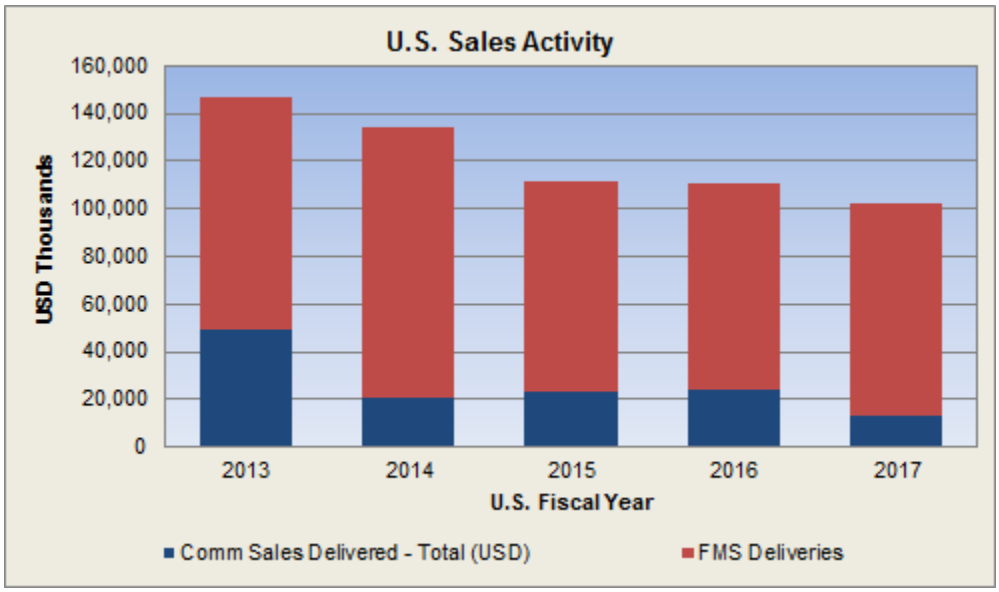
Local currency scale: millions; USD scale: billions

* Real figures are at constant 2019 prices and exchange rates.

Security Assistance

The United States provided $50,000 in security assistance funding under the International Military Education and Training (IMET) program in 1997, the last year that the U.S. provided any direct security assistance to Spain.

Arms Trade



Following considerable development of its defense industry during the first half of the 1980s, Spain was able to reduce its reliance on imported arms while dramatically increasing its own arms exports. Bolstered by sales to Venezuela, Norway, and Australia – primarily in the naval domain – Spain has entered the ranks of the world's 10-largest defense exporters.

Beginning in 2001, Spain was able to steadily increase its level of arms exports, with a particularly noticeable year-on-year rise in 2006, when defense exports more than doubled from the 2005 figure of EUR419.5 million to EUR845 million. In 2007, they reached EUR932.94 million and in 2008, EUR934.4 million.

Exports rebounded and set a new record high in 2009 with EUR1.346 billion in sales – an increase of 44 percent from the year before. In 2010, Spanish defense exports fell for the first time in a decade, dropping slightly by 3 percent from the 2009 peak down to EUR1.3 billion. This drop was reversed in 2011 when Spain's defense exports rose by 117 percent, jumping to EUR2.43 billion.

For 2012, the defense export total slipped by 20 percent, down to 1.954 billion. Once again, this slide was reversed the following year when 2013 exports increased to EUR3.91 billion, thanks to sales of aircraft produced by Airbus' plants in Spain as well as legacy naval-construction contracts with Australia. Since then, defense exports have eclipsed EUR3 billion, totaling EUR3.2 and EUR3.72 billion in 2014 and 2015, respectively. Defense exports broke the EUR4 billion threshold in 2016, reaching EUR4.05 billion. They continued to rise in 2017, reaching a record high EUR4.34 billion – thanks to growth in sales to Saudi Arabia – before dropping to EUR3.72 billion in 2018. For the first half of 2019, Spain exported EUR2.41 billion worth of defense-related materiel.

The primary recipients of Spanish arms are the EU and NATO member countries of Europe and North America. However, Spain also has a broad range of other clients spread across the globe, including Malaysia, Morocco, and several Latin American nations such as Brazil, Colombia, Chile, and Venezuela.

In terms of weapons imports, the United States has traditionally been the largest supplier of arms to Spain, with France and Germany also serving as significant suppliers.

Spain's defense export promotional body, Defex, set up in 1972 and featuring a 51 percent majority government stake, was dissolved in September 2017 following judicial investigations into illegal kickbacks related to orders of defense materiel. The government has since ruled out creating a new defense exports board to replace Defex.

Washington-Madrid Sales Activity. Traditionally, Foreign Military Sales, rather than commercial exports, have been the preferred channel for Spanish purchases of U.S. defense equipment.

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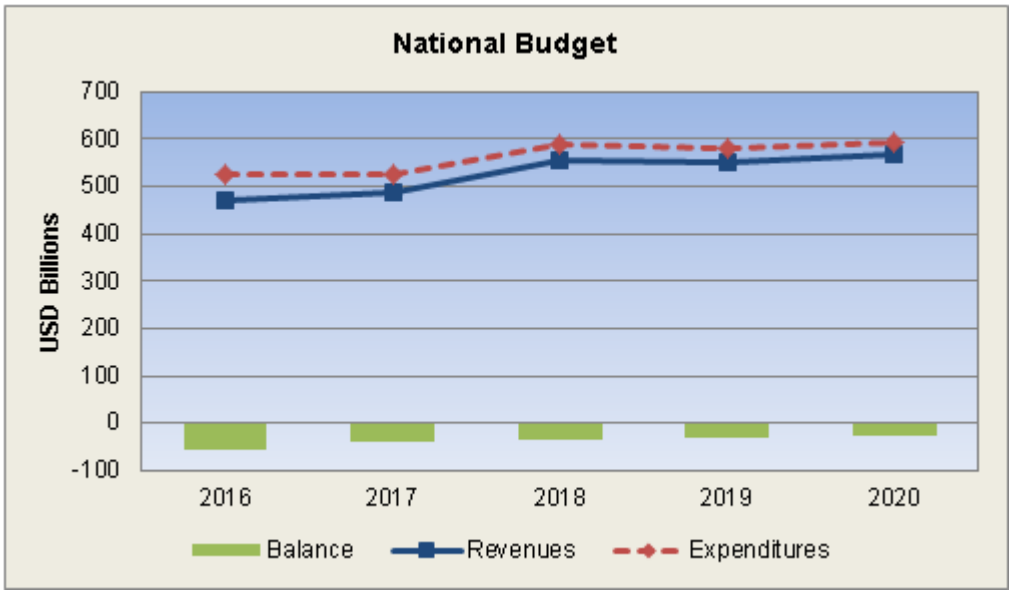
From FY50 through FY17, Spain placed FMS orders with the United States worth some $9.855 billion; over the same period, Madrid took delivery of arms worth $9.096 billion through the FMS program.

U.S. Sales Activity - Spain, 2013-2017					
	2013	**2014**	**2015**	**2016**	**2017**
FMS Agreements	$102,852	$76,097	$45,072	$285,588	$98,811
Comm Sales Auth - Articles (USD)	$124,349	$88,249	$129,043	$33,721	$35,683
Comm Sales Auth - Services (USD)	$280,635	$84,500	$52,860	$52,648	$103,195
Total Commercial Sales Authorized	$404,984	$172,749	$181,903	$86,369	$138,878
Comm Sales Delivered - Total (USD)	$49,223	$20,658	$22,819	$23,640	$13,318
Comm Sales % of Total Deliveries	33.4%	15.4%	20.5%	21.3%	13.0%
FMS Deliveries	$97,952	$113,230	$88,523	$87,279	$89,305
FMS Deliveries % of Total Deliveries	66.6%	84.6%	79.5%	78.7%	87.0%
Total Deliveries	$147,175	$133,888	$111,342	$110,919	$102,623

Currency scale: USD thousands

* All years are U.S. fiscal years.

National Budget



National Budget. After posting budget surpluses from 2005-2007, Spain confronted nearly a decade-long stretch in which it ran deficits above the European Union's 3 percent threshold. This largely came about due to Spain's double-dip recessionary stretch and the disastrous stimulus policy approach undertaken by the Socialist government of José Luis Rodríguez Zapatero starting in 2009. By the time the Socialist government realized an 11.1 percent deficit in 2009, the damage had already been done, and ensuing budgetary approaches would be tasked with trimming the imbalance down to more manageable levels.

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In 2011, the Socialists were swept out of office in favor of the center-right People's Party and its leader and new Prime Minister Mariano Rajoy. This government inherited a budget deficit of 9.4 percent left over from 2011 and a staggering economy that re-entered recession in the first quarter of 2012. Rajoy's government had little choice but to impose austerity measures on the country, agreeing to slash EUR27.3 billion from expenditure rolls.

Many Spaniards – particularly the labor unions – expressed unease over the spending cuts, yet the government defied the European Commission by refusing to meet the agreed-to deficit target of 4.4 percent (which would have required additional cuts of EUR18 billion, or EUR45 billion in total). Instead, the government raised the deficit target to a looser 5.3 percent figure for 2012. However, despite attempts to bring the deficit under control, the ongoing economic recession and a decision to aid Spain's ailing banks left the budget at a 10 percent imbalance through 2012 (excluding the cost of bailing out the banks, the deficit was 7 percent).

For 2013, the Rajoy government continued its austerity policies of raising taxes and cutting expenditures in the hope of driving the deficit down to 4.5 percent – a failed effort, as the deficit ended up at 7.2 percent thanks in large part to another recessionary economic year.

The Rajoy government opted to spare Spaniards another year of tax hikes under its FY14 budget, as it grew confident that the economy had weathered the worst of the storm and was set for growth in 2014.

Signs of growth in the economy proved a boon to the government, because as Spain's borrowing costs rose, all the new revenues accrued through higher taxes were funneled toward interest payments on Spanish debt. Economic growth pushed down those borrowing costs, and by late 2013, the yield on Spain's 10-year bond had dropped dramatically to 4.3 percent from 7.7 percent roughly a year earlier.

Still, the European Commission warned Madrid that unless spending cuts were implemented in 2014, the deficit would rise to 6.5 percent. In the end, Spain posted a deficit of 5.7 percent in 2014, thereby meeting the agreed-upon EC target for the first time since 2008.

However, in 2015, the country's deficit – though smaller than in 2014 – was 4.8 percent, much higher than the EU target of 4.2 percent. The 2016 deficit target was 2.8 percent, but, due to a shortcoming of some EUR20 billion in revenues, Spain once again overshot its budget estimate and had to renegotiate with Brussels to meet a new target of 4.6 percent. The EU mandated that Spain run a deficit no higher than 3.1 percent for 2017, which Madrid met.

The government budget unveiled for 2020 initially forecast growth of 1.8 percent. This was subsequently trimmed to 1.6 percent and then 1.1 percent before the full outbreak of the novel coronavirus (COVID-19) exploded in Spain. At the same time, the budget draft forecast a deficit of 1.8 percent, down from 2 percent in 2019. However, with economic stimulus and social protection funding being undertaken in light of the national emergency brought on by the pandemic, the original deficit forecast will undoubtedly be exceeded.

The biggest problem for the central government is that federalist Spain grants substantial budgetary autonomy to the regional governments, which have responsibility for basic services such as health and education. The central government is responsible for only a third of overall national spending, excluding the state's social security administration.

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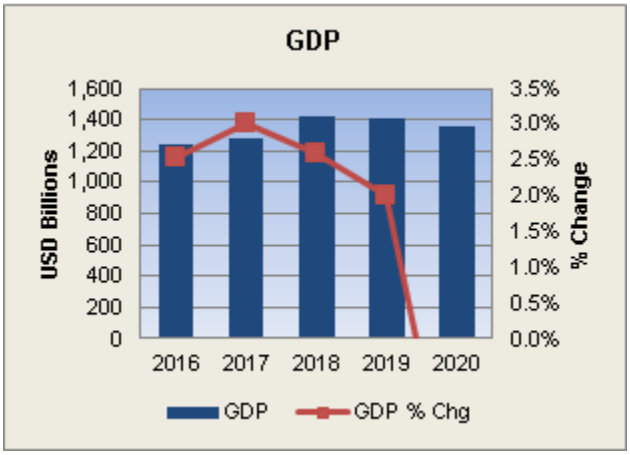
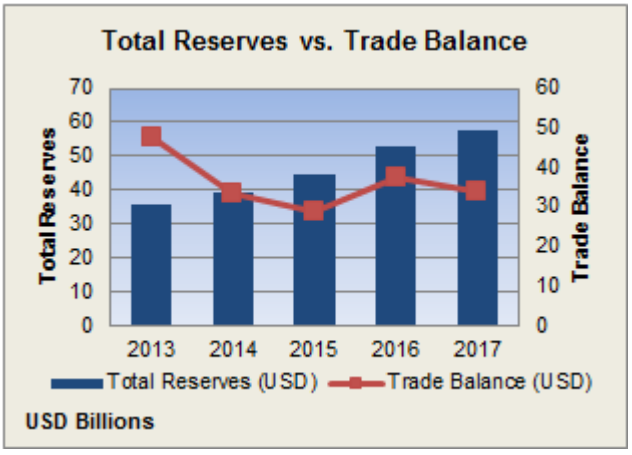
National Budget and Public Debt, 2016-2020					
	2016	**2017**	**2018**	**2019**	**2020**
Gov't Revenues	424.0	442.2	469.5	487.3	503.7
Gov't Revenues (USD)	$469.0	$486.5	$553.0	$549.4	$567.9
Gov't Expenditures	474.8	478.1	499.5	514.2	527.6
Gov't Expenditures (USD)	$525.2	$526.0	$588.4	$579.7	$594.8
Budget Balance	-50.8	-35.9	-30.0	-26.9	-23.9
Budget Balance (USD)	-$56.2	-$39.5	-$35.3	-$30.3	-$26.9
Gross Debt	1,118.3	1,147.1	1,171.1	1,189.6	1,237.6
Gross Debt (USD)	$1,237.0	$1,261.9	$1,379.4	$1,341.1	$1,395.2
Gross Debt % of GDP	98.8%	98.3%	97.5%	95.9%	94.7%
Net Debt	747.1	775.8	799.9	818.4	1,081.6
Net Debt (USD)	$826.4	$853.5	$942.2	$922.6	$1,219.4
Net Debt % of GDP	66.0%	66.5%	66.6%	66.0%	82.7%

Local currency scale: billions; USD scale: billions

Economic Synopsis





Economy. Because of Spain's isolation under the regime of Francisco Franco, Madrid had long played catch-up with its Western European neighbors following the restoration of democracy in 1975. Nevertheless, with the aid of EU structural funds, a strong tourism industry, the macroeconomic stability provided by adopting the euro currency, a property boom, and huge influxes of immigrant workers and euro-expatriate retirees, Spain began to experience strong, consistent growth that, by 2007, placed the country among the 10 largest global economies.

Spain's growth between 1994 and 2007 averaged 3.6 percent annually, and the country's income per person went from 68 percent of the euro-club average when it joined the European partnership in 1986 to 90 percent of the 15-nation eurozone average by 2007. During this time, the country's living standards reached and then surpassed Italy's.

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In short, the Spanish boom was remarkable. During the period between 1994 and 2007, unemployment fell from 24 percent to 8 percent. From 1997 through 2007 (and particularly the years 2004-2006), the Spanish economy was at the epicenter of job creation, producing one out of every three new jobs emerging throughout the eurozone. EU structural funds – which amounted to about EUR186 billion – were shrewdly used by successive Spanish governments to greatly improve the country's tottering infrastructure, resulting in better roads and railways.

From the 1990s into the 2000s, Spain moved from being a labor exporter to needing to import agricultural labor. The country also became a net importer of capital. During the 14-year expansion period, foreign direct investment flooded into Spain as multinational companies – eager to take advantage of Spain's low labor wages – set up shop in the country. While the other large European economies of France, Germany, and Italy largely remained stuck in place, Spain surged ahead.

Spain's thriving economy over most of the 1990s-2000s made the post-2008 economic crisis all the more difficult to witness. During the previous euro slowdown in 2001, the newly developed economies of Spain and Ireland kept the eurozone propped up.

Not this time.

Spain's integral real estate industry took a hit in 2007 when the European Central Bank raised interest rates, and by 2008, the Spanish housing bubble – the largest in the developed world – had effectively imploded. With construction accounting for nearly 18 percent of the economy and one in eight jobs, the burst housing bubble caused Spain's economy to gradually run aground during the first half of 2008.

Years of building houses financed on easy credit had driven the Spanish economy; when the easy credit came to an abrupt halt, so did the economy. By mid-September 2008, when the global financial crisis erupted, Spain was already tumbling into a recession, and the ensuing credit squeeze, coupled with high oil costs, curtailed remaining consumer spending latitude.

Unlike during previous recessions in the early 1980s and 1993, Spain, as a member of the eurozone, could not devalue its currency (formerly the peseta) to attract investment and improve the competitiveness of its exports. Madrid also could not cut interest rates to aid its debt-laden businesses and households.

Thus, Spain faced the sort of hard patch it had hoped to avoid after years of building its economic footing.

The Socialist government chose to handle the onset of the economic crisis by injecting stimulus measure after stimulus measure into the economic bloodstream in 2009, to little avail. The result – besides recessions in both 2009 and 2010 – was a double-digit budget deficit in 2009 (11.2 percent), followed by rebukes from the European Union for the country's growing public debt and lack of fiscal control.

The government changed course in early 2010 with a EUR50 billion austerity plan and a public sector hiring freeze that helped bring the budget deficit down to 9.2 percent for the year. Still, ratings agency Standard & Poor's opted to lower Spain's credit rating and outlook on sovereign debt during that same period. Recognizing that Portugal's request for an international bailout in April 2011 could trigger a similar reaction in Spain, whose banks at that time carried an estimated EUR65 billion in exposure with the neighboring Iberian nation, the Socialist government chose to implement a tough austerity push in 2011, cutting public salaries, extending the retirement age, and raising taxes.

However, due to missed fiscal targets, there was a large budgetary imbalance, leaving the deficit at 9.4 percent for the year. Saddled with a sluggish economy and little recourse but to go against its ideological high-spend moorings and embrace unpopular austerity measures, the Socialists went down in defeat during the November 2011 elections.

The successor center-right People's Party government began implementing even tougher austerity measures than its predecessor had in 2011. By the first quarter of 2012, Spain had once again dipped into recession, with the economy contracting by 1.6 percent over the course of the year. The recession continued into 2013, with the economy shrinking overall by 1.3 percent for the year, but a silver lining came in the second half when Spain finally emerged from recession.

By 2014, Spain was once again posting full-year growth and the direction of the economy – thanks to an improved export performance and government-imposed labor market reforms – finally appeared positive. Economic growth in 2015 reached 3 percent and the economy has since continued to expand year-on-year, thus indicating that Spain's economy – Europe's fourth largest – had finally recovered.

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However, by 2019, the economy had begun to slow (though still expanding at a faster rate than the EU average) and entering 2020, unemployment and public debt remained persistent problems. Now, as the novel coronavirus (COVID-19) forces Eurozone governments to shut down borders and the global economy grinds to a halt Spain looks set to enter a sharp recession. The length and depth of the oncoming recession is still unclear, but with global supply chains temporarily halted, it may prove deeper than the 2008-2009 global economic fallout. Revised forecasts in the first two weeks after the epidemic became particularly acute in Spain suggested an annual contraction between 2.5 and 4.5 percent, though such prognostications remain moving targets. With tourism a particularly crucial sector of the economy, Spain may suffer from a hangover effect from the pandemic, with potential visitors bypassing travel past 2020 and well into 2021.

Spain's main industries are tourism, shipbuilding, construction, textiles, food and beverages, automobiles, and machine tools. Its primary trading partners are Germany, France, Italy, the U.K., the Netherlands, and China. Spain also does considerable amounts of trade and investment throughout Latin America.

Economy, 2013-2020

	2013	2014	2015	2016	2017	2018	2019	2020
GDP	1,049.2	1,058.5	1,097.8	1,118.5	1,163.7	1,208.2	1,244.7	1,205.0
GDP (USD)	$1,393.0	$1,404.4	$1,218.4	$1,237.3	$1,280.2	$1,423.1	$1,403.2	$1,358.5
GDP % Chg	-1.2%	1.4%	3.1%	2.5%	3.0%	2.6%	2.0%	-2.8%
Total Reserves	26.7	29.8	40.0	47.6	52.4	49.5	-	-
Total Reserves (USD)	$35.4	$39.5	$44.4	$52.7	$57.7	$58.3	-	-
Exports	331.0	339.0	357.0	368.5	396.7	345.2	-	-
Exports (USD)	$439.5	$449.8	$396.2	$407.6	$436.4	$406.6	-	-
Imports	295.0	314.0	331.0	334.8	365.7	388.0	-	-
Imports (USD)	$391.7	$416.6	$367.4	$370.4	$402.3	$457.0	-	-
Trade Balance	36.0	25.0	26.0	33.7	31.0	-42.8	-	-
Trade Balance (USD)	$47.8	$33.2	$28.9	$37.3	$34.1	-$50.4	-	-
Inflation	1.4%	-0.2%	-0.3%	0.9%	2.0%	1.7%	0.7%	1.0%
Unemployment Rate	26.1%	24.5%	21.8%	19.6%	17.2%	15.6%	14.2%	13.9%
FX Rate (Local to USD)	0.8	0.8	0.9	0.9	0.9	0.8	0.9	0.9

Local currency scale: billions; USD scale: billions

Manufacturing Capability

Spain's defense industry expanded significantly during the 1980s and then underwent a period of contraction, reorganization, and privatization in the 1990s. Since then, the Spanish defense industrial base has continued to expand, and today produces products in sectors such as naval platforms, aerospace platforms, land platforms, defense electronics, weapons, and ammunition. Spain is also involved in many EU cooperative projects, including most prominently the A400M transport aircraft (for which Spanish industry is responsible for final assembly; it is also partially responsible for the TP400 engine), the Eurofighter Typhoon, and the Future Combat Air System (FCAS) initiative.

In 1985, the leading Spanish arms manufacturers formed a trade association known as the Asociación Española de Fabricantes de Armamento y Material de Defensa y Seguridad (Association of Defense Equipment Manufacturers, or ***AFARMADE***). After leading members, such as EADS and Indra, pulled out of AFARMADE, a new association

was formed in 2009 to replace the former trade group. This became the Asociación Española de Empresas Tecnologicas de Defensa, Aeronautica y Espacio (Spanish Association of Defense, Aeronautics, Security and Space Technologies, or ***TEDAE***).

The northern Spanish region of Cantabria became the first in the country to set up an industrial cluster dedicated to the defense sector in July 2019. The cluster – known as CID (Cluster de la Industria en Defensa) – involves 18 companies and three local universities. Some of the companies involved include Everis Aeroespacial, Defensa y Seguridad, and Erzia Technologies.

Major Companies

Company	Primary Activity
Airbus Defence and Space	Major global aerospace producer.
Airbus Helicopters Espana	Spanish subsidiary of Airbus Helicopters that assembles, overhauls, repairs, and supports platforms at two sites: one in Albacete and one in Madrid.
General Dynamics European Land Systems (GDELS)	European arm of General Dynamics headquartered in Madrid; specializes in land systems, particularly armored and tracked combat vehicles.
GMV Innovating Solutions	Defense electronics specialist focusing on cyber defense, command and control systems, simulation systems, and ISR systems.
Hercules de Armamento	Small arms maker.
Indra	Information technology and defense electronics systems specialist.
Instalaza	Specializes in small arms, including anti-tank rockets, 90mm weaponry, night vision devices, and other equipment for infantry soldiers.
Iveco Espana	Spanish hub of Italian Iveco; produces trucks, tractors, and armored vehicles.
Mecanizados Escribano	Parts supplier for larger companies involved in aerospace and missile programs; niche producer of remote-control cannon systems and door gun systems.
Navantia	Spanish shipbuilding prime.
SENER Aeroespaciale	Specializes in electromechanical systems, helicopter modernizations, systems for submarines, and communications intelligence products.
Tecnobit	Electronics components and systems designer, producer, and integrator.
UROVESA	Manufacturer of land systems and heavy vehicles.

Spain: Section 1 - Data

Political and Security Environment

Source: CIA *World Factbook*

Following the death of General Francisco Franco in 1975, the four-decade-long dictatorship in Spain gave way to a parliamentary monarchy. The country is divided into 17 autonomous regions under the federal leadership in Madrid. There are also five areas of sovereignty on and off the coast of Morocco. The Basque and Catalan regions have been given even broader autonomy in order to pacify their vocal nationalist populations and maintain federal cohesion.

Executive. The monarch, King Felipe VI, serves as the ceremonial chief of state. Juan Carlos I, Felipe's father, assumed the throne in 1975 after the death of Franco and the restoration of democratic rule. The monarch possesses a hereditary title; no elections are held.

Real executive power lies in the office of the prime minister, who also serves as the head of government. In Spain, the title is officially the president of government, although due to Spain's parliamentary government, this is equivalent to the title of prime minister, sometimes causing confusion in translation. The prime minister is proposed by the monarch and elected by the legislature following general legislative elections. The prime minister is by tradition the leader of the largest party in the National Assembly and is selected to serve a four-year term.

The current prime minister is Pedro Sanchez, who assumed office on June 2, 2018. Sanchez is the leader of the left-leaning Socialist Workers' Party (*Partido Socialista Obrero Español*, or PSOE). He succeeded Mariano Rajoy as prime minister. Rajoy, of the center-right People's Party (PP), became prime minister in December 2011 and remained in power until June 2018, when he was toppled in a no-confidence vote in parliament initiated out of dismay over corruption within the PP.

Sanchez headed a minority government with limited power with which to steer policy. After his government's proposal for the 2019 general budget was voted down in parliament on February 13, 2019, Sanchez announced that he would call a snap election. That general election was held in April 2019, and though his party won more seats, it failed to gain a majority. After talks on forming a government failed, a fresh election was held on November 10, 2019, and though his party lost three seats overall from April's election, it still finished with the largest presence in parliament.

On January 13, 2020, a new minority coalition government headed by Sanchez and the Socialists in partnership with the far-left Unidas Podemos alliance and a smattering of independents.

Legislative. The Spanish legislature is a bicameral parliament known as the Cortes Generales, or National Assembly. The lower house is known as the Congress of Deputies and has 350 members who are elected by proportional representation in each province for four-year terms, which are subject to dissolution. The upper house is the Senate, which has 259 seats. Of the total, 208 members are directly elected in four-member constituencies from each province. Furthermore, each autonomous region (province) appoints one senator, plus an additional senator for every 1 million inhabitants in the respective territory. This appointment is made by the legislative assembly. An additional 51 senators are currently selected in this manner. Senators each serve four-year terms subject to dissolution.

The most recent elections for both houses of the 14th Cortes Generales were held on November 10, 2019.

The incumbent left-leaning Socialist Workers' Party (*Partido Socialista Obrero Español*, or PSOE) finished first with 120 seats.

The majority opposition conservative People's Party (*Partido Popular*, or PP) finished second, winning 89 seats.

Since 2015, the Spanish political landscape has shifted, with the two aforementioned major parties seeing their shares of the electorate shrink in favor of parties on the ends of the left-right spectrum.

Some of these parties, such as the right-wing populist Vox party, are relatively new and are offshoots of the traditional larger parties. Vox – founded in 2013 by former members of the PP – finished third in November 2019 election with 52 seats and 15 percent of the electoral share.

Meanwhile, the ultra-leftist Unidas Podemos – an alliance formed in 2016 between Podemos, the United Left, and other left-wing parties – finished fourth with 35 seats and a 13 percent share of the votes. Other parties that won seats in the double-digits included the Republican Left of Catalonia-Sovereigntists (ERC-Sobiranistes) with 13 and the centrist Ciudadanos (Citizens) with ten.

Following the election the Socialists formed a minority governing coalition (Sanchez II) with Unidas Podemos and some independents.

Military Posture

Spain is a member of both the NATO Alliance and the European Union. External strategic priority is placed on the axis formed by the Canary Islands in the Atlantic, the Strait of Gibraltar, and the Balearic Islands in the Mediterranean.

The status of Gibraltar is an ongoing point of peaceful contention since it was ceded by Spain to Britain in the 1713 Treaty of Utrecht, which ended the War of Spanish Succession. British sovereignty was confirmed in the Treaty of Seville (1729) and the Treaty of Paris (1783). Spain continues to desire Gibraltar's return as recognizable Spanish territory, but the local population affirms loyalty to the United Kingdom.

As a nation perched on the Iberian Peninsula, Spain is at the forefront of Europe's naval and migration interdiction security.

Infrastructure

Description. Spain is located on the Iberian Peninsula in southwest Europe. It is bordered by France to the northeast with a 623-kilometer (387-mi) border, Portugal to the west with a 1,214-kilometer (754-mi) border, Andorra to the northeast with a 65-kilometer (40-mi) border, and Gibraltar to the south with a 1.2-kilometer (0.7-mi) border. Spain is also bordered by the Atlantic Ocean to the north, northwest, and southwest, and by the Mediterranean Sea to the south and east. Coastlines total 4,964 kilometers (3,085 mi).

The total area of Spain measures 504,750 square kilometers (194,899 sq mi). The Pyrenees mountain range separating Spain from France is a particularly significant terrain feature.

Airfields. Total: 150; total with paved runways: 99; 10 heliports

Pipelines. Gas, 10,481 kilometers; oil, 616 kilometers; refined products, 3,461 kilometers

Railroads. Total: 16,101 kilometers; broad gauge: 11,873 kilometers of 1.668-meter gauge (6,488 km electrified)

Spain: Section 1 - Data

Roads. Total: 683,175 kilometers; 16,205 kilometers of expressway

Ports. Algeciras, Barcelona, Bilbao, Cartagena, Huelva, Tarragona, and Valencia

Major Exports. Foodstuffs, machinery, semi-finished goods, cars and trucks, pharmaceuticals, medicines

Major Imports. Machinery and equipment, chemicals, foodstuffs, semi-finished goods, fuels, consumer goods, measuring and medical control instruments

Directory

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Procurement Organization

The Directorate General for Defense Armament and Materiel is responsible for planning and managing military procurement, as well as research and development projects involving the country's defense sector. The DGAM can be contacted at the Defense Ministry at the following address:

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Spain:
Section 2 - Market Overview

Ongoing Programs and Future Requirements

Aircraft Programs

Eurofighter Typhoon. The Eurofighter Typhoon is the frontline, new-generation air defense jet fighter of the Spanish armed forces. It is produced by Eurofighter GmbH, a four-nation consortium that includes EADS Deutschland of Germany, the EADS CASA division in Spain, Finmeccanica of Italy (now Leonardo), and BAE Systems of the U.K. (EADS is now Airbus SE.) Spain has a 13 percent stake in the overall program.

Spain ordered 87 Eurofighter Typhoons at a cost of EUR10.8 billion ($15 billion) and holds an option for an additional 16 fighters.

The fighters were delivered from three contract/production batches, or "tranches."

The first Spanish tranche was for 19 aircraft, the second for 35 aircraft, and the third for 33 Typhoons (this tranche has been split into two parts, Tranche 3A and 3B, with Spain possibly looking to sell off the entire Tranche 3B batch as a means of recouping money while avoiding penalties for cancellation of this agreed-upon purchase).

Eurofighter GmbH announced the formal delivery of the first three two-seater series-production Typhoon aircraft to the Spanish Air Force on May 27, 2004. After a final delivery on August 10, 2007, Spain officially received all 19 aircraft under the first phase of the Eurofighter Typhoon procurement program.

The Ministry of Defense quickly signed on for the second batch of fighters (Tranche 2); this agreement called for delivery of a further 35 aircraft. Deliveries of these Tranche 2 fighters began on October 10, 2008, and ran through 2012.

Spain's EADS CASA (now Airbus Defence and Space) served as a national company under the Eurofighter program. The EADS CASA production line in Getafe, Spain, was retooled and opened in August 2001. The plant assembled the right wing for all 620 aircraft in the planned production run. The Getafe plant was also responsible for final assembly of the Typhoon aircraft ordered by the Spanish Air Force.

The first squadron of Tranche 1 production Eurofighters – operating as part of the Spanish Air Force's 11th Wing – became operational in January 2008 at the Morón de la Frontera base outside Seville.

Three Typhoon squadrons are stationed at Morón, including 111 and 112 Combat Squadrons and 113 Squadron, which is responsible for conducting training programs.

Another squadron (141), based at Los Llanos near Albacete, replaced the aging Mirage F1 aircraft stationed there. A second squadron (142) at Albacete was re-equipped with Typhoons in 2013.

Spain committed to 20 new Typhoons after signing on to Tranche 3A of the Eurofighter Typhoon program in summer 2009.

Procurement of the final portion of Tranche 3 (Tranche 3B), consisting of the remaining 13 aircraft under Spain's original 87-unit commitment, was nixed by the government, resulting in a decision to take only 73 (one was written off following an accident in June 2014).

Deliveries to Spain of Tranche 3 Typhoons began in 2015. The previous delivery schedule was to run between 2012 and 2014, but the Spanish government opted to push back deliveries in order to ease the pressure on short-term defense budgets. When 12 Eurofighters under Tranches 2 and 3A were delivered, the government – short of funding to cover payment – had the Air Force store them at Albacete air base pending official handover from the NATO Eurofighter and Tornado Management Agency (NETMA) in December 2016.

Spain: Section 1 - Data

Beginning in 2017 and running through 2019 into 2020, the Air Force's Centro Logistico de Armamento y Experimentacion (CLAEX) and Logistical Support Command is upgrading the legacy Tranche 1 standard Eurofighters with the capabilities of the latter two configurations. The first upgraded unit was redelivered to the Spanish Air Force on February 25, 2019.

Also of note, the Socialist government cleared a funding package in December 2018 that will allow for a fleet-wide upgrade and modernization of the Air Force's 73 Eurofighter Typhoons. This project will cost EUR906 million ($1.027 billion) with costs covered out to 2023 under the investment package. The midlife upgrade, which forms part of the Air Force modernization plan referred to as Road Map 2035++, will allow Spain to retain its Tranche 2 and Tranche 3 Typhoon fleet through 2045 (Tranche 1 units will be retired by 2040).

In the meantime, Spain – along with its three European consortium partners – inked a EUR1 billion development and integration contract in November 2014 to equip its Typhoons with an active electronically scanned array (AESA) radar.

Eurofighter Typhoon

Source: Austrian Bundesheer

European Next-Generation Fighter. As long expected, Spain has officially joined the Franco-German project to develop a Next-Generation Fighter (NGF) that will form part of a broader Future Combat Air System (FCAS).

The first significant step bringing it into the program occurred with the signing of a Letter of Intent (LOI) on February 14, 2019. Previously, Spain held official observer status within the project, which was initially launched in July 2017. Spanish Defense Minister Margarita Robles stressed in her public announcement of the LOI signing that Spain entered the project on equal terms with its French and German partners.

Then, on June 17, 2019, at the Paris Air Show, Spain officially joined the program, with Defense Minister Robles signing the agreement beside her counterparts, Florence Parly of France and Ursula von der Leyen of Germany. At the same signing, the three partners also signed the first implementation agreement for the development of the Joint Concept Study of the FCAS.

The 18-month initial framework (Phase 1A) contract was then signed by Spain alongside its French and German partners on February 20, 2020, at which time a separate letter of intent for the incorporation of Spain into the IA2 phase set to begin in mid-2020.

Phase 1A will examine the basic designs for the NGF, Remote Carriers (drones), and the Air Combat Cloud (ACC) elements that form the wider FCAS.

This gave Spain a 33 percent stake in the project with an initial investment of EUR110 million.

Spain has tapped Indra as its national prime contractor for FCAS. Indra will be charged with coordinating Spain's industrial participation within the program.

The three partners aim to develop the sixth-generation fighter as a long-term replacement for the lead combat aircraft in the French, German, and Spanish air forces beginning around 2040. For Spain, as for Germany, this involves a successor to its fleet of Eurofighter Typhoons.

The NGF is to operate in conjunction with a swarm of drones that will serve both as weapons platforms and advanced sensors. These two systems, which are to function together, are collectively referred to as the Next-Generation Weapon System (NGWS).

The first flight of an NGF demonstrator platform is targeted for 2026. The aircraft design will then be finalized around 2030.

While the long-term NGF project entails a successor to the Spanish Air Force's Typhoon fleet, the service also operates older "classic" EF-18A Hornets and a small stock of U.S. Navy surplus FA-18A/Bs that will require replacement in the nearer term.

Another batch order of Typhoons is the likely medium-term bridge solution here, though the Air Force has in the past indicated interest in the land-based variant of the Lockheed Martin Joint Strike Fighter, the F-35A. Joining the U.K. "Team Tempest" future fighter initiative has also been considered.

F/A-18 Hornet. In 1995, the Spanish government decided to acquire 24 additional U.S. Navy surplus Boeing F/A-18A/B aircraft to provide the Air Force with an interim capability until the Eurofighter Typhoon entered full operational service in 2008.

By 1998, with delivery complete, these aircraft were being used to supplement the 72 Boeing EF-18 Hornets already in service. The EF-18s were delivered between 1986 and 1990. In the Spanish Air Force, the designation "EF-18" indicates that the aircraft were built and delivered new to Madrid – the "E" stands for España. U.S. Navy surplus Hornets retain their U.S. F/A-18 designation.

In February 2005, Spain received the first midlife upgrade (MLU) of an F/A-18 fighter; an additional 65 aircraft were upgraded between 2005 and 2007, with all revisions completed by 2008. The cost of the upgrade was estimated at EUR186 million. It was intended to allow Spain more interoperability with NATO forces.

The MLU covered an upgrade of the F/A-18s' electronic warfare suite, which included the new Indra ALR-400 radar warning receiver, ALE-47 countermeasures dispensers, and the ASQ-600 precision emitter locator system. Other improvements included integration of the AIM-120 Advanced Medium-Range Air-to-Air Missile (AMRAAM) and new Spanish-developed OFP-O5E software for the aircraft's computer operating system.

The first 20 F/A-18s supplied to Spain are to be retired before 2025, with the remainder being phased out through 2030. Thus a successor platform remains a crucial consideration for the Spanish Air Force. This may be provided by another procurement of Eurofighter Typhoons to serve as a short- to medium-term bridge.

F-18 Hornet

Source: Boeing

Spanish Navy's Air Wing Solution Remains the Harrier until 2027. A pressing concern for the Spanish Navy has been the future of its combat aircraft component post-2020. As Spain's economic and financial worries began to negatively impact defense allocations – particularly for military modernization – the issue became more acute.

Currently, the Spanish Navy operates 1980s-vintage AV-8B Harrier Plus jump jets whose service lives are set to expire in the 2020s. The question of what to do when that happens has weighed on naval chiefs and military planners for years.

In 2010, Navy officials settled upon a replacement option involving the F-35B Lightning II short takeoff/vertical landing (STOVL) Joint Strike Fighter operating from its strategic projection ship, *Juan Carlos I*. However, with Spain's fiscal environment still difficult and unit cost projections for the F-35 increasing, this potential solution was

pushed to the right indefinitely. Nevertheless, as the F-35B is the only available STOVL fighter on the market, Spain is left with little option but to extend the service lives of the Harriers.

To that end, the Navy – under a Memorandum of Understanding (a 10-year post-production agreement jointly undertaken with the U.S., Italy, and Britain in 2004) that was to conclude in December 2014 – received a EUR70.3 million ($95 million) allocation to extend its Harrier life-cycle support. The allocation was announced by the Spanish government on May 23, 2014.

This funding allows the Harriers to continue operating until around 2027, by which time Spain hopes that the unit production costs for the F-35B will have begun to decline. Both the Spanish Air Force and Navy are eyeing the F-35 to replace their legacy F/A-18 Hornets and Harriers between 2025-2030, though financial implications may push this target out an extra year or two. The Air Force has estimated a requirement of 45-50 F-35s, with the Navy eyeing 12-15 of the fighters. The procurement could, as an early estimate, cost Spain over EUR6 billion.

A400M. The A400M military transport aircraft was designed to replace the Lockheed C-130 and Transall C-160 as the transport aircraft of choice among the nations participating in its development: Belgium, France, Germany, Luxembourg, Malaysia, South Africa, Spain, Turkey, and the United Kingdom.

The A400M design is a fit between the Lockheed Martin C-130 and the Boeing C-17. Four turboprop engines power the aircraft, which takes off at about 270,000 pounds and haul a 65,000-pound payload some 2,450 nautical miles. Under a Memorandum of Understanding signed in 2001, Spain has a 12.5 percent national work share in the program. Spain is the home of Airbus Defence and Space, the manufacturer of the A400M.

Spain's order for 27 aircraft (placed in May 2003) made it the third-largest customer for the A400M.

The first of the Spanish Air Force A400M aircraft were to begin entering service in 2010 to replace the remaining C-130H Hercules tactical transport aircraft. However, the A400M program suffered from delays relating to the planes' turboprop engines.

The first Spanish A400M did not roll off the Seville production line until 2014; it was finally delivered to the Air Force on November 17, 2016.

Due to the financial struggles facing Spain, the government reached a decision in 2013 to take delivery of only 14 of the 27 units ordered. An agreement with Airbus Defence and Space was reached in December 2015.

In a further agreement reached in April 2016, the final 13-unit batch will not be delivered until 2024 in order to reduce any maintenance-cost burden on Madrid. This will save Spain some EUR800 million, notwithstanding any other monies recouped through the sale of the aircraft to third parties.

Airbus A400M Transport Design

Source: Airbus Project Office

Aerial Refueling Gap. The primary aerial refueling aircraft in the Spanish Air Force for years remained the aging Boeing 707. With these now retired, the Air Force has prioritized the acquisition of three Airbus A330 multirole tanker transports (MRTTs) to replace the Boeing 707s, but Spain's financial and economic struggles placed this requirement on the backburner.

Though a deal for three A330s was almost closed in 2015 at a cost of EUR600 million, nothing came of it, and now the Air Force finds itself short of adequate aerial refueling capacity, placing a strain on the remaining fleet of KC-130Hs.

Under the upcoming 15-year defense modernization plan, the Defense Ministry intends to move forward with an A330 MRTT procurement. The plan calls for this procurement to be conducted during the first phase, which means an acquisition should be made prior to 2025, but now, due to likely financial pressures, this may fall into the second phase (post-2025).

Basic Trainer Replacement: PC-21. As a long-term replacement for the Spanish Air Force' fleet of C-101 Aviojet trainers Spain has opted for the PC-21 turboprop trainer from Swiss company Pilatus. The CASA Aviojet trainers first entered Spanish Air Force service in 1980 and are fast approaching the end of their operational lifespan.

A replacement evaluation process began around the time the Spanish economy peaked in 2007-08, but by 2009, amidst economic fallout and financial crisis, the project was frozen.

With Spain's economy and public finances on firmer footing the process was rebooted with evaluations undertaken of the Pilatus PC-21, Leonardo's M-345 and the Textron Aviation T-6 Texan II. The selection of the PC-21 was determined in late 2019, with leaked tender documents indicating that the Swiss platform was the preferred alternative due in part to providing the best value for money.

Spain earmarked EUR225 million ($249 million) for the acquisition of a new fleet of trainers in April 2019. The order signed on January 30, 2020, involves 24 PC-21s under a contract worth EUR204.75 million ($227 million).

Once delivered, the new trainers will form part of an integrated Spanish Air Force training system. The current model involves a two-phase flight training program with pilots beginning to fly the T-35C Pillan and Aviojets before graduating upwards to more advanced jets, such as the Northrop F-5 (license-produced by CASA) Freedom Fighter.

The delivery timeline Spain laid out calls for the first six aircraft to be handed over in 2020, followed by six more before the end of August 2021, and the remainder arriving by April 2022. The first PC-21s will be ready to conduct basic training flights in 2021. Once in service, the aircraft will be referred to as the E.27.

Initially, the PC-21s will serve as a successor to the T-35 Tamiz in the elementary flight training role and the C-101 for basic training, while the remaining C-101s and F-5Bs continue in their advanced training role until the former are retired and a solution is in place for selecting an advanced trainer successor.

The C-101 fleet will be progressively retired between September 2021 and 2027.

Unmanned Aircraft Programs

EuroMALE RPAS. Spain joined the joint European medium-altitude, long-endurance (MALE) drone project alongside France, Germany, and Italy on August 5, 2016, when the government approved an investment of EUR17.58 million in the first stage of the program. The EuroMALE (previously called European MALE 2020) Remotely Piloted Aircraft System (RPAS) project aims at providing a European alternative to the U.S.- and Israeli-derived MALE drone platforms that dominate the current market. The EuroMALE RPAS will form part of the Franco-German-Spanish Future Combat Air System (FCAS).

The program kicked off in 2018 with the design definition phase (completed in December 2018) leading to the launch of the developmental phase in early 2019, with a prototype expected in early 2023. First series-production models would then follow starting around 2025.

The three Spanish companies jointly leading the country's participation in the UAV element (referred to Remote Carriers (RCs), or 'loyal wingmen') of the FCAS program: GMV, SENER Aerospacial, and Tecnobit Grupo.

The Spanish Air Force has set out a requirement for 15 of the new EuroMALE RPAS platforms with the first system expected to arrive in Spain in 2026.

MQ-9 Reaper. With a long-standing requirement for an unarmed MALE UAV, Spain short-listed two contenders to meet its needs in August 2015: the General Atomics MQ-9 Reaper and the Israel Aerospace Industries (IAI) Heron TP.

A formal Spanish government request to the U.S. for the sale of four MQ-9 Block 5 Reapers at an estimated cost of $243 million was approved by the State Department and announced to Congress on October 5, 2015.

After being downselected as the preferred MALE UAV platform one month earlier, the Reaper purchase was approved by Spain's government in November 2015. An FMS contract for all four UAVs was then awarded in 2016 at a cost of $27 million.

Spain: Section 1 - Data

Spain plans to spend a total of EUR161 million on its four MQ-9 drones plus two ground stations. An initial allotment of EUR50 million was allocated toward the acquisition in FY15 budgets, while the remaining EUR111 million will be paid out in installments from 2016 through 2020.

The first two Reapers, plus one ground station, were delivered to the Spanish Air Force in July 2018. Delivery of the second ground station followed in October 2018. The third and fourth drone systems arrived through year-end 2019, and the full complement of four systems entered service in January 2020.

Spain then initiated another FMS order for two additional MQ-9 Block 5 Reapers at a cost of $34 million. The Department of Defense awarded a contract to General Atomics Aeronautical Systems on March 28, 2019, with deliveries scheduled by March 31, 2020. This brings the total number of Reapers ordered for Spain to six.

Orbiter 3. Spain's Defense Ministry tapped the Aeronautics orbiter 3 as its preferred ISTAR solution for overseas missions in October 2018. The Israeli UAV beat out the Fulmar from Thales in a EUR3.1 million competition that called for the procurement of two systems comprising three UAVs apiece.

Neuron UCAV Program. On December 30, 2005, the Spanish Council of Ministers approved Spain's participation in the French Dassault Aviation-led Neuron unmanned combat air vehicle program. The Spanish participation was set at a level of EUR35.5 million, spread out over 2007-2012. The Neuron UCAV is being developed for air-to-ground combat missions. The six participating countries are France, Greece, Italy, Spain, Sweden, and Switzerland.

On December 1, 2012, the maiden flight of the Neuron UCAV technology demonstrator was successfully completed. The flight-test campaign lasted until the demonstrator's 100th successful flight in February 2015, then was followed by the weapons-drop test phase with the Mk 82 bomb in late 2015.

The Neuron program is expected to lead to production of a UCAV platform and spawn further pan-European cooperative development programs.

Helicopter Programs

Airbus Helicopters Tiger. In September 2003, the Spanish government announced it had selected the Eurocopter Tiger to meet its attack helicopter requirement. The Army received 18 of the HAD battlefield support version of the helicopter under a revised contract signed in December 2005, which superseded the original 2004 contract.

The order called for 24 new helicopters (including six in the retrofit HAP configuration), with Spain holding options for an additional six machines. The contract was worth about $1 billion.

Deliveries of the first three Spanish FAMET HAP Tigers occurred on April 16, 2007, at the FAMET base at Almagro/Coronel Sánchez Bilbao; by 2010, all six of the HAPs had been delivered and were being used for training purposes.

The initial six in the HAP variant were to eventually be retrofitted to the HAD configuration. Then, in May 2013, the government changed its mind and opted to put them up for sale in an effort to achieve savings and recoup some of the investment loss from the purchase. That idea amounted to nothing, and, in February 2020, the decision was taken to instead withdraw these six units from service and use them for spares and testing for the new Mk III (future attack helicopter) prototype version.

The Spanish Defense Ministry received the first two new HAD-E variants of the Tiger attack helicopter from Airbus Helicopters on December 18, 2014. The final HAD-E version was received on January 14, 2020.

The odds of Madrid picking up its option on the additional six Tiger HAD-E units are beyond slim owing to the downsizing of the Spanish military (necessitated by the country's economic situation) and the funding overhang related to prior procurement commitments.

Chinook Upgrade. Spain plans to upgrade its 17 CH-47D Chinook heavy-lift helicopters to the latest CH-47F standard per an announcement by Boeing on January 3, 2019.

Earlier reports indicated that the Army had decided to bypass an upgrade of its helicopters to the "F" standard in favor of an outright purchase of new-build CH-47Fs after 2020. A formal government-to-government Foreign Military Sales (FMS) request was made by Spain to the U.S., with approval by the State Department and announcement to Congress following on April 4, 2018. The $1.3 billion estimated request called for the purchase of up to 17 new-build CH-47Fs.

Instead, on September 24, 2018, the Spanish government approved funding of EUR819 million ($962 million) for the upgrade initiative. With the contract approval phase in the rearview mirror, the program began in late 2018 with return to service of the first upgraded Chinook slated for 2021. By 2025, work on the entire fleet should be complete, enabling the Spanish Army to retain its Chinooks well into the 2030s.

Work will include fitting the legacy Chinooks with new glass cockpits, more powerful engines, the Digital Automatic Flight Control System (DAFCS), and the Advanced Cargo Handling System (ACHS).

NH90. On December 22, 2006, the Spanish Cabinet approved an order for an initial batch of 45 NH90 medium transport (TTH model) helicopters from NH Industries in an attempt to implement a badly needed modernization of its helicopter fleet.

The order came at a cost of EUR1.26 billion ($1.67 billion), which is being paid in annual installments from 2007 to 2025.

Though Spain planned a buy of 45 NH90s, severe economic and budgetary pressures forced the government to trim the base procurement in half, per an announcement by Secretary of State for Defense Pedro Arguelles to Congress on May 23, 2013, with the remaining unit differential being placed on option after 2015.

Although an activation of this option seemed unlikely, by early 2018, the Defense Ministry had re-examined the idea of procuring more NH90s with an eye on the naval variant. By September 7, 2018, the Spanish Council of Ministers had green-lighted the necessary funding for the additional 23 units, essentially picking up the long-delayed option.

The EUR1.38 billion contract was inked in late December 2018, with the 23 units to be split among the three main service branches. The Army will receive ten units (GSPA) variants, while the Navy takes seven MSPT naval variants, and the Air Force the remaining six in GSPA configuration. The Navy's units will replace the oldest of the legacy S-60B Seahawks, while the Army and Air Force will use its additional units to phase out the aging Eurocopter AS332 Super Pumas.

The initial NH90 GSPA tactical transport helicopter – designed for a variety of missions, including troop transport, search and rescue, and medical evacuation – was handed over to the Spanish Defense Ministry on December 18, 2014. This unit is used for pilot training.

The first two operational NH90 Caimans (referred to in Spanish Army service as HT-29 Caimans) were not handed over to the Spanish Army's Air Mobile Force (FAMET) until September 13, 2016. Delivery of the Spanish Army's full complement of 16 HT-29 Caimans is slated to run through 2021. The Air Force is to receive its full complement of six by 2021.

Airbus Helicopters España is assembling all NH90s ordered for Spanish military service.

NH90

Source: Airbus Helicopters

Spain: Section 1 - Data

Warship Programs

Scorpène Class (S-80A) Submarine. Spain's troubled S-80 program – aimed at building a new-generation class of diesel-electric submarines to replace the Spanish Navy's current four-sub S-70A Galerna class on a like-for-like basis – took a small step forward when local shipbuilder Navantia announced on April 11, 2016, that the lead-in vessel's hull sections had been extended. The work became necessary after issues relating to weight and balance problems on the lead-in submarine – *Isaac Peral* (S-81) – were discovered.

The first of four new submarines, the *Isaac Peral* was initially planned for delivery in 2012, but the date was pushed back to May 2013. Then, on May 7, 2013, in a joint statement detailing the weight issues, the Spanish Navy and Navantia announced that the delivery schedule would be delayed indefinitely.

The initial S-80 design was a derivative of the French Navy's Scorpène submarine built by DCNS, but Spain – seeking to achieve as much critical design and technological independence as possible within its naval sector as a matter of national security – settled on a 100 percent Spanish design from Navantia that involved a class of 71-meter-long submarines with an initial price tag of EUR2.1 billion. This Spanish design featured a displacement of 2,246 tons submerged and utilized a combination of diesel-electric propulsion and 300-kW air-independent propulsion (AIP) based on ethanol reformer fuel-cell technology.

By November 2014, the Spanish government was forced to allocate an additional EUR759 million ($866 million) to cover the project's cost overruns. These included the aforementioned weight and balance issues, as well as problems fitting the AIP system (the producer, Abengoa, ironed these out in late 2015).

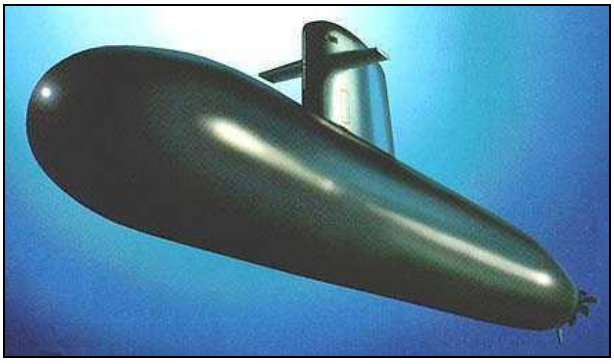
Following two years of redesign work involving U.S. submarine builder General Dynamics Electric Boat (GDEB), a Preliminary Design Review for the now-rebranded S-80 Plus class was approved in September 2015.

Approval for the program's Critical Design Review (CDR) followed on July 18, 2016. The current design and construction focus remains fixed on the *Isaac Peral*, with delivery now pushed back to late 2021 and possibly out to early 2022 – nine years later than originally envisioned. The pressure hull for the Isaac Peral was closed on December 18, 2019, and the boat will be relaunched in October 2020.

In April 2017, the Spanish MoD announced that the initial budget for the four-submarine class – EUR2.13 billion – would only cover the expense of the lead boat *Isaac Peral*. Thus, a revised budget with fresh cost estimates was prepared by the MoD in tandem with Navantia to cover the expense of the remainder of the class. The final price tag will now reach EUR3.9 billion following approval by the governing Council of Ministers on July 27, 2018, of an additional EUR1.77 billion for the project.

Also of note, the new AIP system planned for installation on the submarines is not expected to be ready on time and may need to be retrofitted onto the boats. Thus, the entire delivery timeline is out of sync and will extend well into the mid-2020s.

In the meantime, a potential order for a second batch of S-80s has been ruled out by Spanish defense authorities. Ongoing delays to the S-80 project have forced the government to extend the service lives of the Spanish Navy's three remaining operational S-70 submarines that were ordered in the 1970s and delivered in the early 1980s. This will be the fifth major overhaul of the three S-70 submarines (the latest granted by emergency decision in 2016) and will push their service lives out to at least 2021.



Model of Scorpène-Type Submarine, on Which S-80A Is Based

Source: Bazán

Álvaro de Bazán Class (F-100) Frigate. Just when it seemed that production of the Álvaro de Bazán class frigates was finished, the 2006 defense budget included an order for a fifth. Though the Navy hoped to eventually form a second batch of these ships, that now seems only a slight possibility due to Spain's ongoing economic and financial pressures.

The lead ship, *Álvaro de Bazán*, entered service in 2002. Its sister ships – *Almirante Juan de Borbón*, *Blas de Lezo*, and *Méndez Núñez* – entered service between 2003 and 2006. The fifth-in-class – *Cristóbal Colón* – was delivered in July 2012.

Each of the five ships displaces some 4,555 tons. To fulfill their role as the Spanish Navy's primary anti-air warfare combatants, the ships are equipped with the Lockheed Martin AEGIS combat management system. The AEGIS system includes the SPY-1D 3-D phased-array radar mounted some 20 meters above the waterline. With the addition of the AEGIS Weapon System, the Spanish F-100s are similar to the U.S. Arleigh Burke class.

The AEGIS system enables frigates to engage simultaneous threats from over, under, and on the sea. Lockheed Martin provides the AEGIS Weapon System to Spain under an FMS agreement between the U.S. and Spanish navies. When the AEGIS Weapon System's SPY-1 radar, the most advanced computer-controlled naval radar system in the world, is paired with the Mk 41 vertical launch system, it is capable of delivering missiles for every mission and threat environment in naval warfare.

Spanish F-100

Source: Spanish Navy

F-110 Frigate. The Spanish Navy will be bringing into service a new class of five F-110 multi-mission frigates in what represents the service's key program through 2035.

Spain's Ministry of Defense signed a contract with local shipbuilder Navantia on April 23, 2019 covering construction of the five F-110s. The EUR4.317 billion ($4.83 billion) project represents the Spanish Navy's cornerstone capital program through 2035, forming part of the larger EUR7 billion-plus military investment package signed off on by the Socialist government in December 2018.

The government will cover the cost of the F-110 project with payments made this year through 2032.

According to Navantia production work will commence in Ferrol, with each new warship containing 80 percent indigenous Spanish content. Features will include a Spanish combat system, SCOMBA, developed by Navantia that serves as the intelligence center for the ship by integrating all its sensors and weapons. These include Indra Information Friend or Foe (IFF), Band S radar, Lockheed Martin vertical launchers, SAES sonars, and the navigation and communications systems from Navantia Sistemas.

Planning for the F-110 future frigates – which will replace the Spanish Navy's six Santa Maria-class frigates built in the early 1980s – began in 2009. A feasibility study Navantia conducted between January and July 2014 resulted in a baseline design of the ship, allowing the Spanish Navy to move on to the project definition phase.

As a result of that phase, which ran through 2015, the former Rajoy government agreed to sign an R&D contract with Navantia (worth EUR135 million) regarding a series of technological programs to develop and integrate radar and electronic warfare systems.

Spain: Section 1 - Data

A detailed design-and-build contract fell under the latest 15-year cycle of defense investments planned by the Ministry of Defense with a final execution order for the project approved by the Council of Ministers on March 29, 2019.

Delivery of the first warship is scheduled for 2026 with the final ship arriving in 2031.

Buques de Acción Marítima (BAM) Meteoro Class Corvette. In July 2006, the Spanish MoD contracted Navantia to build an initial batch of four new light patrol *Buques de Acción Marítima*, or BAM, frigates for the Spanish Navy.

The new light patrol vessels are replacing those of the Barcelo, Anaga, Conejera, Toralla, and Descubierta classes, which are all nearing the end of their operational lives and ill-suited for operations on the high seas.

Primarily intended for constabulary-type actions, the versatile new Meteoro class BAMs provide a naval presence that can support control of territorial waters, protect and control merchant shipping, protect and support small naval units, deploy special forces and search-and-rescue operations, and provide surveillance of fisheries.

The ships were built at Navantia's shipyard at Cadiz. The BAMs are about 94 meters in length and have a displacement of 2,500 tons; they have a 20.5-knot maximum speed and contain helipads.

Delivery of the ships fell off the original timetable that would have seen all four ships in service by November 2010. Instead, the first-in-class, *Meteoro* – delivered in October 2009 – was not commissioned until 2011. Despite the delays, sea trials proved very successful, and the remaining three BAMs were commissioned by February 2012.

The Spanish government then extended a contract to Navantia (announced on May 7, 2014) for the acquisition of two additional BAM corvettes for the Navy.

Originally, the Spanish Navy expected to field a fleet of 14 such vessels, but equipment budget difficulties involving the so-called Special Armaments Program – dating back to the 1990s – forced the government to suspend procurement orders from 2008 onward.

In order to keep Navantia's shipyards at Cadiz and Ferrol active, the government opted to use money from the Ministry of Industry budget to cover the costs of the EUR400 million ($556 million) second-series BAM order, which was signed on December 5, 2014. The first ship of the second batch – *Audaz* – was launched on March 30, 2017, and handed over on July 27, 2018. The second ship – *Furor* – was launched in May 2017 and commissioned on January 21, 2019. Both ships are based in Cartagena.

European Patrol Corvette. Spain plans to join up with the EU's Permanent Structured Cooperation (PESCO) initiative involving construction of a new 30,000-ton corvette.

The European Union council announced a spate of new projects on November 12, 2019. One of these concerns the design and development of a prototype for a new naval vessel called the "European Patrol Corvette" (EPC). This project will involve France and Italy, two countries that have previously worked together to achieve commonality of design and scale through joint procurement of naval warships. The naval joint venture between the prime shipbuilders in both countries – Italy's Fincantieri and France's Naval Group – named Naviris is expected to design a modular vessel capable of tackling patrol and surveillance operations while equipped for anti-submarine and anti-surface warfare missions.

While coordinated by Italy with France as partner, the project is adding new partners, with Greece having joined up and Spain leaning towards doing so as well. Navantia would be tasked with performing industrial workshare on behalf of Spain.

Missile Programs

Meteor Air-to-Air Missiles. In addition to IRIS-T air-to-air missiles, the Spanish fleet of Eurofighter Typhoons will be receiving Meteor Beyond-Visual-Range Air-to-Air Missiles (BVRAAMs). The Meteor is produced by MBDA/EADS. An initial order was approved by the Spanish government in December 2009. The first batch order was for 100 missiles, with deliveries running through 2016. Though the Air Force would like a total procurement of 230 missiles, other funding priorities may take precedence.

An original partner in the Meteor development program, Spain holds a 10 percent stake in missile production through its domestic firms Inmize Sistemas and General Dynamics Santa Bárbara Sistemas.

Vehicle Programs

ASCOD Pizarro Infantry Fighting Vehicle. In the mid-1990s, Santa Bárbara and Austrian firm Steyr-Daimler-Puch formed a joint venture – ASCOD AIE – to develop a new class of armored infantry fighting vehicles to meet the Spanish VCI requirement, along with a similar requirement for the Austrian Army. ASCOD is an acronym for "Austrian/Spanish Cooperative Development."

The Spanish Ministry of Defense placed the Phase 1 order for 144 Pizarro vehicles in December 1996. The order consisted of 123 in the IFV configuration and 21 armored mobile command posts. This batch was delivered in 2002. The Pizarro design included the capacity for eight infantry troops and a crew of three and called for a 30mm Mauser Model F cannon as the vehicle's main armament. The vehicle is powered by an eight-cylinder diesel engine delivering 600 hp and designed to operate at a combat weight of 24,800 kilograms (54,674 lb).

In 2003, the Spanish Army selected Santa Bárbara Sistemas to begin Phase 2 of the service's Pizarro Advanced Infantry Fighting Vehicle Program. However, due to ongoing budgetary cuts, this phase of the program continued to suffer from delays and was ultimately reduced in scope.

Original plans called for procurement of 484 Pizarros, including 332 AIFVs, 28 command post vehicles, 40 artillery forward observer vehicles, 27 armored recovery vehicles, and 57 combat engineer vehicles. Completion of Phase 2 was slated for 2013.

Instead, the total number of tracked vehicles ordered under Phase 2 was reduced to just 119, including 83 IFVs and 36 vehicles in either recovery or engineering variants. Delivery of the 83 IFVs occurred in March 2017. Production of the remainder kicked off in late 2017.

Pizarro IFV

Source: General Dynamics Santa Bárbara Sistemas

Futuro Sistema de Combate Terrestre (FSCT): Piranha V. Spain's long-awaited "Futuro Sistema de Combate Terrestre" requirement, intended to provide the Spanish Army with an 8x8 wheeled armored fighting vehicle (*Vehículo de Combate sobre Ruedas*, or VCR) to replace its obsolete 6x6 wheeled Pegaso BMRs, finally appeared to be moving forward when, in April 2017, the country's Secretary of State for Defense, Vicente Conde, announced to the national Congress Defense Commission the planned purchase of a first batch of 348 Piranha V 8x8 armored fighting vehicles. This was intended to be followed by additional batch purchases in what would ultimately amount to around 1,000 vehicles.

The project – which forms part of the legacy Special Armaments Program involving 19 major defense procurement programs dating back to 1996 – began to take shape in August 2009 when the Spanish Defense Ministry issued Requests for Information (RFIs) to interested bidders. A winner was expected to be named in spring 2010. However, the selection was postponed due to budgetary concerns stemming from the economic crash and a failed stimulus effort by the governing Socialist Party that blew up the country's deficit.

Severe financial pressures forced Spain to keep the project on the backburner.

It was not until May 2015 that the Spanish Defense Ministry issued a fresh RFI to leading manufacturers to meet the VCR requirement. By December 2015, reports were indicating that the Spanish Army had opted for the General Dynamics European Land Systems (GDELS) Piranha V.

Spain: Section 1 - Data

After years of delays and waiting, the Army's FSCT program finally received crucial funding clearance from the Council of Ministers in December 2018, paving the way for a procurement. Funding estimates for this project at the time of clearance amounted to EUR2.1 billion ($2.38 billion) for the first batch order of 348 vehicles with payments running out to 2030.

The long-awaited "Futuro Sistema de Combate Terrestre" requirement aims to provide the Spanish Army with an 8x8 wheeled armored fighting vehicle (*Vehículo de Combate sobre Ruedas*, or VCR) to replace its obsolete 6x6 wheeled Pegaso BMRs. The new AFVs will be referred to as "Dragon."

Prototypes referred to as "UTE VCR 8x8" have already been developed by a consortium consisting of Santa Barbara Sistemas, Indra, and SAPA based on the General Dynamics European Land Systems (GDELS) Piranha V. The first five test vehicles will be handed to the Spanish Army in 2019.

A first-batch production contract for 348 vehicles (out of a total 998) was to be signed in 2019 after the Council of Ministers approved the overall scope of the project with modified expenditure commitments – three separate batch procurements totaling 1,000 vehicles at the cost of EUR3.836 billion – on July 12, 2019. The orders would involve the initial 348 VCR 8x8s (with deliveries wrapped up in 2022), followed by a second order for 365 vehicles in 2022, followed by the third batch order of 287 at a later date.

Then, on December 27, 2019, Defense Minister Margarita Robles announced that the government instead intended to recompete the $2.1 billion contract. This decision came after the government rejected the offer from Santa Barbara Sistemas as it breached its technical and economic requirements. The decision puts the program once again under threat of delay, as financial, economic, and political pressures stemming from the COVID-19 pandemic may force the government to push the project to the right until the economy solidifies.

4x4 Utility Vehicles. The Spanish government approved the purchase of 772 4x4 utility vehicles in March 2012. The procurement was budgeted at EUR149 million. Only one bidder, domestic firm URO Vehículos Especiales (UROVESA), submitted a technical bid, involving its URO VAMTAC S3 vehicle.

The Spanish procurement involves three types of utility vehicles: a high-mobility tactical variant; a high-protection reconnaissance variant; and a seawater-resistant version for naval forces. The variants will be ordered in specific models ranging from ambulances to tankers to missile platforms.

The 4x4 reconnaissance variant was designed and developed by the Army's Logistic Support Command. Referred to as the Vehiculo de Reconocimiento Terrestre (VERT), the vehicle is based on the VAMTAC. A prototype of this variant was unveiled in April 2016 following initial trials.

Should an agreement be reached, deliveries will commence over a five-year period. The distribution of vehicles per service has been outlined as 519 units for the Army, 99 for the Navy, 76 for the Air Force, and 78 for the military emergency unit.

* * *

Spain:
Section 3 - Force Structures

Source: PH2 Jeffrey Russell

Active End Strength (2020)	
Army	69,250
Navy	20,100*
Air Force	19,350
Joint	11,650
Total Active	**120,350**
Reserves	15,150
Total Force	**135,500**

* Naval personnel total includes Marines and Naval Aviation.

The Spanish military has been fully professional since January 2003, with the last conscripts discharged in December 2002. Recruitment is also open to Spanish-speaking foreigners up to a threshold whereby they represent no more than 9 percent of all active-duty personnel. In accordance with Law 17/99, all positions within the Spanish military are open to women, including combat assignments.

Spain created a Joint Special Operations Command in 2014 to coordinate the activities of its Army Special Operations Forces with those of the Navy and Air Force (Parachute Combat Engineer/Sapper Squadron).

Paramilitary forces (Guardia Civil) represent an additional 78,000 personnel and are equipped with both airborne platforms and armored vehicles.

The Air Force reported in March 2018 a major shortage of personnel, in particular trained pilots. As many as 5,000 additional personnel are required to cover ongoing missions and emerging needs such as cyber defense.

Spain: Section 1 - Data

Aircraft

Air Force

Fighter/Attack		
Model	**Current Inventory**	**Notes**
Boeing EF-18A	54	Original order totaled 72 aircraft, with option for 12 more; first deliveries in 1986, with all deliveries completed in 1990; replaced F-4s and Mirage IIIs; all received a midlife upgrade between 2005 and 2008 that allowed the aircraft to be more interoperable with NATO fighters; this MLU program had an estimated cost of EUR186 million; to be retired by 2030, with the earliest models to be retired prior to 2025
Boeing F/A-18A	22	Acquired from U.S. Navy surplus between 1995 and 1998; originally intended to serve as an interim aircraft prior to introduction of the Eurofighter Typhoon, these Hornets will now be replaced under the Future Combat Air System program, which remains in the conceptual stages; plans call for a mix of manned and unmanned aircraft operating within an integrated network to be the Hornets' successors; to be retired by 2030, with the earliest models to be retired prior to 2025
Eurofighter Typhoon	73	Spain is one of the four principal members of the Eurofighter consortium; it received 19 Typhoon aircraft from the first production tranche, with deliveries completed in 2007; deliveries of the second tranche of 35 aircraft began in 2008; the total Spanish requirement was for 87 aircraft, but Madrid has opted to forgo the final tranche (Tranche 3B) and take only 73 in total (one single-seater written off following June 2014 crash), including delivery of final 12 Tranche 3A units; first upgraded Tranche 1 Eurofighter delivered back to Spanish Air Force on February 25, 2019, with work on 14 more units underway; funding for fleet-wide upgrade and modernization project approved by Spanish government in December 2018 – this project will allow Air Force to retain its Tranche 2 and Tranche 3 types out to 2045, with work commencing on them post-2021; Tranche 1 units will be phased out of service by 2040

Maritime Reconnaissance		
Model	**Current Inventory**	**Notes**
CASA CN-235 VIGMA	4	Two additional aircraft delivered in 2009
Lockheed P-3A/B/M	2/4/1	Will remain in service through 2025, after which both the P-3s and CN-235s will be replaced under the still-in-conception Multisensor Surveillance System program; two As are ex-U.S. Navy, and the remaining five units are armed forces stocks from Norway

Trainers		
Model	**Current Inventory**	**Notes**
Beech A100	1	
Boeing EF-18B	12	

Trainers		
Model	**Current Inventory**	**Notes**
CASA C-101EB Aviojet	63	Single-engine trainers from CASA (now part of Airbus) that first entered Spanish service in 1980; two withdrawn in 2011; fleet is undergoing a program that is extending the operational life of each plane's airframe beyond 6,000 flight-hours; the first C-101 to be modernized was delivered back to the General Air Academy at Albacete air base on October 30, 2013; replacement effort for these trainers frozen in 2009; the government green-lighted a $22 million acquisition of spare parts for these jets in February 2017; to be progressively phased out of service between 2021 and 2027, with the older models serving in the basic trainer roles to be retired first and those serving in the advanced trainer role remaining operational longer; three aircraft of the Spanish Air Academy lost between August 2019 and February 2020
CASA SF-5M	20	
CASA T-35C Tamiz	37	To be progressively replaced by Pilatus PC-21 in the elementary trainer role starting in 2021
Eurofighter Typhoon (Tandem)	10	One crashed on August 24, 2010
Lockheed KC-130H	5	
Raytheon C-90	3	
Raytheon F33C	23	

Transports		
Model	**Current Inventory**	**Notes**
Airbus A310-300	2	
Airbus A400M	14	Spain originally planned to buy 27 A400Ms under the government of Jose Maria Aznar (1996-2004), but by 2013 it had become apparent that Madrid would never be able to afford the entire slate of aircraft; an agreement was reached with Airbus Defence and Space in December 2015 whereby Spain will only buy 14 units from the originally requested 27, with the remaining 13 aircraft to be sold to a third party – the 13-unit batch will not be delivered and subsequently sold until 2024, thus reducing any maintenance costs that would fall on Spain; the first Spanish A400M was expected to come off the Seville production line in 2014 and enter service in 2015, but instead was delivered on November 17, 2016; two were slated for delivery in 2018; Spain joined with Britain and France in signing a long-term Global Support Service contract for the A400M with Airbus Defence and Space in December 2016, allowing the three countries to benefit from a spares pool, plus support and operations services at reduced cost
Boeing 707	1	VIP transport
CASA C-212-200	5	
CASA C-212 Aviocar	8	
CASA C-295M	13	All being refurbished as part of the December 2015 agreement with Airbus Defence and Space that reduces the A400M order
CASA CN-235M	11	VIP transport
CASA Do 27A	1	Used for liaison purposes
Cessna Citation V Ultra	2	VIP transport
Dassault Falcon 20	4	VIP transport

Spain: Section 1 - Data

Transports		
Model	**Current Inventory**	**Notes**
Dassault Falcon 900	5	VIP transport
Lockheed C-130H	7	Spain is seeking an upgrade to the C-130 fleet; the upgrade program was approved by the former Socialist government in the summer of 2011 under the condition that bids not exceed EUR22.5 million and payments be disbursed over a five-year period; the Air Force seeks to upgrade the C-130s with new cockpit displays, lightweight armor for the cockpits, and exits at the rear of the fuselage for paratroop units

Search and Rescue		
Model	**Current Inventory**	**Notes**
CASA C-212	9	

Utility/Liaison		
Model	**Current Inventory**	**Notes**
Bombardier 415	10	Firefighters
Canadair CL-215T	14	Used for firefighting and support missions
CASA Do 27A	1	

UAVs		
Model	**Current Inventory**	**Notes**
General Atomics MQ-9 Reaper / Predator B	6	Spain bought four MQ-9 MALE surveillance systems downselected in 2015 and approved for government-to-government sale by the U.S. State Department under an October 5, 2015, notification to Congress – with $27 million contract awarded in 2016; Spain spent EUR161 million on the four Reapers, plus two mobile ground control stations, with EUR50 million already earmarked under FY15 budgets – the remaining EUR111 million was paid out in installments across 2016-2020; two drones plus one ground station delivered in July 2018, while the second ground station arrived in October 2018, followed by the third and fourth Reapers by year-end 2019; also delivered: five electro-optical MTS-B HD EO/IR sensors and four SAR-MTI radars; additional FMS order worth $34 million for two more Reapers placed by Spain, with DoD awarding the contract on March 28, 2019 – deliveries expected in 2020

Helicopters - Multirole		
Model	**Current Inventory**	**Notes**
Sikorsky S-76C	8	Used for training, search and rescue, and utility; four more are on order

Helicopters - Search and Rescue		
Model	**Current Inventory**	**Notes**
Airbus Helicopters AS 332	16	15 used for search-and-rescue operations; the other used in VIP role; to be replaced by six NH90s ordered in December 2018

Spain: Section 1 - Data

Helicopters - Search and Rescue		
Model	**Current Inventory**	**Notes**
Airbus Helicopters H215 Super Puma	4	Ordered in July 2016 via NATO Support and Procurement Agency (NSPA); first three delivered on October 3, 2016, with final unit handed over on December 18, 2018; assigned to 802 Squadron based at Gran Canaria in the Canary Islands

Helicopters - Training		
Model	**Current Inventory**	**Notes**
Aerospatiale SA.330J Puma	4	Used for training and as a VIP transport
Airbus Helicopters 120B	15	

Helicopters - Transports		
Model	**Current Inventory**	**Notes**
Airbus Helicopters 532UL	2	Used as VIP transport for MoD
NH Industries NH90 Caiman	6	Part of 22-unit complement ordered by Spain; these were initially to be allocated to Army, but now appear destined for Air Force; first units arrived in 2019, with remainder to be delivered by 2021

Army

UAVs		
Model	**Current Inventory**	**Notes**
Mini-Raven B		
Searcher Mk 2J		Purchased from IAI in April 2007

Helicopters - Attack		
Model	**Current Inventory**	**Notes**
Airbus Helicopters Tiger	18	Under a December 2005 contract (which superseded a 2004 contract), the Spanish Army ordered 24 Tiger attack helicopters (18 in the HAD battlefield support configuration and six in the retrofit HAP configuration); first three HAP Tigers delivered on April 16, 2007, with remainder following through 2010; once all 24 of the Spanish Tigers had been delivered, the initial six in the HAP variant were to be retrofitted to the HAD configuration, but the government announced in May 2013 that it would look to sell these six as a means of shrinking the shortfall in the defense equipment budget – ultimately a decision was made in February 2020 to withdraw these units from service and use them for spares and testing for the new prototype Mk III (future attack helicopter) version rather than convert them to HAD configuration; first two new HAD-E variants were delivered by Airbus Helicopters on December 18, 2014
CASA BO 105	21	

Spain: Section 1 - Data

Helicopters - Observation		
Model	**Current Inventory**	**Notes**
Bell OH-58 Kiowa	2	Ex-U.S. Army units; used for observation and forward air control
CASA BO 105	4	

Helicopters - Training		
Model	**Current Inventory**	**Notes**
Airbus Helicopters H135	12	Replacing OH-58 Kiowas and UH-1s in training role; four units were in service with Army's Aviation Training Center as of 2013, with eight EC 135T2 variants purchased under EUR49 million contract with Eurocopter (now Airbus Helicopters) on December 27, 2013; first two new units handed over on January 13, 2014; EC 135 eventually renamed H135

Helicopters - Transports		
Model	**Current Inventory**	**Notes**
Agusta/Bell AB212	6	
Airbus Helicopters AS 332	14	To be replaced by 10 NH90s ordered in December 2018
Airbus Helicopters AS 532AL	3	Delivered in December 2010 for use by the Military Emergencies Unit (Unidad Militar de Emergencias, or UME)
Airbus Helicopters AS 532UL	14	
Bell UH-1 Iroquois	12	Ex-U.S. Army helos
Boeing CH-47D Chinooks	17	Used for heavy transport purposes; 13 C variants purchased in early 1970s, with six new-build D variants acquired in the mid-1980s; one written off on February 20, 1973, soon after delivery; another was written off on January 17, 1995; nine C variants upgraded to D standard from 1990 to 1993, with remainder undergoing conversion between 1997 and 2001; these are being upgraded to the latest "F" standard under a contract announced by Boeing on January 3, 2019; delivery of the first upgraded units will begin in 2021 and run through 2025

Helicopters - Utility		
Model	**Current Inventory**	**Notes**
NH Industries NH90 (HT-29 Caiman)	26	Spain originally planned to buy 45 NH90s, but severe economic and budgetary pressures forced the government to trim the base procurement in half, with the unit differential from the original contract being placed on option after 2015 (this option was picked up in December 2018 and involves 10 more units for the Army); all types are of the Tactical Transport Helicopter (TTH) variant; first Spanish-built unit (the GSPA) delivered to military on December 18, 2014 and used as a trainer; first two fully operational HT-29 (as referred to in Spanish Army service) Caiman units handed over to Army's Air Mobile Air Force (FAMET) on September 13, 2016; delivery of remaining 14 units ran through 2018

Navy

Fighter/Attack		
Model	**Current Inventory**	**Notes**
BAE Systems AV-8B Plus (Harrier)	13	Five converted from EAV-8 configuration
Boeing EAV-8B	4	Ordered in 1983 for $378 million; delivery 1987-1989; underwent modernization (Spanish Navy UpGrade, or SNUG) by Cassidian Spain at San Pablo, Seville; modernization included installation of 408A Pegasus engine and new computer display and night vision equipment; first unit upgraded in 2011 and redelivered to Navy in February 2012, and remaining three returned to Navy by end of year

Liaison		
Model	**Current Inventory**	**Notes**
Cessna Citation II	3	

UAVs		
Model	**Current Inventory**	**Notes**
Skeldar		Saab rotary-wing short- to medium-range UAV deployed on BAM *Meteoro*

Helicopters - Anti-Submarine/Surface Warfare		
Model	**Current Inventory**	**Notes**
Agusta/Bell AB212	9	Deliveries of the original 14 units began in February 1974; these arrived in anti-submarine configuration, but the electronic surveillance gear on the remaining helos was removed in the 1990s and these now perform utility and troop transport duties; these helicopters are undergoing a EUR21 million service life extension upgrade by a joint venture made up of SENER Ingeniería y Sistemas SA and INAER Maintenance (awarded the contract on December 27, 2011) that will see them outfitted with new avionics and communications systems; the upgrade will extend their service lives by 15 years; maiden flight of first upgraded AB212 undertaken in December 2013, and handover of first four back to Spanish Navy was expected in second half of 2014, with three more following in 2015
McDonnell Douglas 500M	4	Used for anti-submarine warfare, search and rescue, and training
Sikorsky SH-3 Sea King	8	Operated by Spanish Navy for nearly 50 years; to be replaced by SH-60Fs
Sikorsky SH-60B Seahawk	12	Delivered in December 1988; used for anti-submarine warfare and search and rescue; oldest of these to be replaced by seven NH90s ordered in December 2018

Spain: Section 1 - Data

Helicopters - Utility		
Model	**Current Inventory**	**Notes**
Sikorsky SH-60F Seahawk	2 (of 6)	Procured through U.S. Foreign Military Sales (FMS) program via request approved by the Pentagon on September 29, 2010; to be used primarily for search-and-rescue missions, but able to perform multiple missions; the first two of what should eventually become six ex-U.S. Navy Seahawks were slated to become operational with the Spanish Navy by December 2015 under original project timeline, but instead fell victim to delay as government examined potential navalized NH90; Spanish government finally gave green light to fund the project in December 2016, with EUR40 million provided for the first two helicopters; delivery of initial platform occurred on August 8, 2017, shortly followed by delivery of the second; these first two units form part of a larger effort to replace the SH-3 Sea Kings; the Council of Ministers approved an extension of the SH-60F program on November 8, 2019 whereby two additional units plus two helicopter airframes not suitable for flight but to be used for spare parts will be acquired from the U.S. via the FMS channel, with EUR36.3 million earmarked for the acquisition; this order would bring the total number ordered up to eight upgraded units, with six already officially ordered through November 2019 (four of these are due for delivery between 2021 and 2023); the extension order would bring the total to eight

Warships

Submarines

S-70 Galerna (Agosta) Class

1,490 tons surfaced; four 550mm torpedo tubes; first two subs ordered in 1975, next two ordered in 1977, all built by Bazán, Cartagena; powered by two SEMT-Pielstick diesels; fifth major overhaul of these submarines approved in 2016 by emergency decision of the government; service life extension should push the operational lives of these three submarines out to at least 2021

Name (Hull Number)	Notes
Galerna (S 71)	Launched in 1981; commissioned in 1983
Mistral (S 73)	Launched in 1983; commissioned in 1985; in 2013 the ship underwent its fourth major refit at Navantia's Cartagena shipyard and then began a series of sea trials on July 4, 2013, before being redelivered to the Spanish Navy in the fall; upgrade ensures the submarine will remain operational for at least five years from point of redelivery
Tramontana (S 74)	Launched in 1984; commissioned in 1986; undergoing a major overhaul in order to ensure no capabilities gap emerges prior to the entry into service of S-80A class *Isaac Peral*

Isaac Peral (S-80A) Class

Class of four new submarines; first submarine class built by Navantia at its shipyard in Cartagena based on a 100 percent Spanish design; 2,198 tons surfaced; 12 knots surfaced, 20 dived; Raytheon Tomahawk Block IV sea-launched cruise missiles, Boeing Sub Harpoon surface-to-surface missiles; Lockheed Martin/Navantia weapons control system; SAES Solarsub towed passive array sonar; approval for contract granted in 2003; contract awarded to Navantia on March 24, 2004; keel of first-in-class, S-81, laid down December 2007; Spanish government approved funding repurposing for the project on July 27, 2018, calling for an additional EUR1.77 billion, higher than the original estimate of EUR2.13 billion, bringing the total cost to EUR3.9 billion

Name (Hull Number)	Notes
Isaac Peral (S-81)	Built by Navantia at its Cartagena shipyard; laid down in December 2007; was to be launched in May 2013, but discovery that the submarine was 75 tons overweight forced all previously planned handover dates to be pushed back; the submarine's weight and balance problems have since been resolved, but delivery was pushed back to 2015 and then 2017, then again to late 2021/early 2022; the pressure hull was completed on December 18, 2019, after being lengthened to restore its buoyancy, and the S-81 will be launched in October 2020
Narciso Monturial (S-82)	Being built by Navantia at its Cartagena shipyard; laid down in 2008; to be commissioned in 2022
Cosme Garcia (S-83)	Being built by Navantia at its Cartagena shipyard; laid down in 2009; to be commissioned in 2022
Mateo Garcia de los Reyes (S-84)	Being built by Navantia at its Cartagena shipyard; laid down in 2010; to be commissioned in 2023

Frigates

Álvaro de Bazán Class (F-100)

Displacement: 5,583 tons full load; length: 481.3 feet; beam: 61 feet; speed: 28 knots; endurance: 4,500 nautical miles at 18 knots; armament: eight Harpoon Block II surface-to-surface missiles, Mk 41 vertical launch system (48 cells) for Evolved SeaSparrow surface-to-air missiles, Standard SM-2MR Block IIIA SAM, one FMNC 5-inch Mk 45 Mod 2 main gun, one Bazán 20mm Meroka 2B gun, two Oerlikon 20mm guns, four 323mm Mk 32 Mod 5 fixed torpedo launchers with 24 Mk 36 Mod 5 torpedoes; electronics: Lockheed AEGIS Baseline 5 Phase III (DANCS) Link 11/16, satcom, MCCIS, SPY-1D AEGIS air/surface search radar, DRS SPS-67 (RAN 12S) surface search radar, two Mk 99 SAM fire control radars, Raytheon DE 1160 LF hull-mounted active search-and-attack sonar, active towed array sonar (ATAS)

Equipped with flight deck for one SH-60B Seahawk helicopter; Spain procured five of this class, which began to enter service in 2002; first-in-class, *Álvaro de Bazán*, launched in 2000 and underwent sea trials 2001-2002; deliveries through 2006; all ships in the class built at the Izar (formerly Bazán) shipyard at Ferrol, Spain

Name (Hull Number)	Notes
Álvaro de Bazán (F-101)	Built by Izar; laid down in 1999; launched October 2000; commissioned September 2002
Almirante Juan de Borbon (F-102)	Built by Izar; laid down in 2000; launched February 2002; commissioned November 2003
Blas de Lezo (F-103)	Built by Izar; laid down February 2002; launched June 2003; commissioned December 2004
Mendez Nunez (F-104)	Built by Izar; laid down June 2003; launched September 2004; commissioned in 2006
Cristobal Colon (F-105)	Built by Izar; laid down February 2009; launched in 2010; commissioned in 2013

Santa Maria Class

4,017 tons full load; one Seahawk helicopter; one Oto Melara 76mm gun, one Bazán Meroka 12-barreled 20mm gun, two triple 32mm torpedo tubes, McDonnell Douglas Harpoon anti-ship missiles, General Dynamics Standard SM1-MR surface-to-air missiles; powered by General Electric LM2500 gas turbines

Name (Hull Number)	Notes
Santa Maria (F 81)	Built by Bazán, Ferrol; laid down in 1982; launched in 1984; commissioned in 1986
Victoria (F 82)	Built by Bazán, Ferrol; laid down in 1983; launched in 1986; commissioned in 1987
Numancia (F 83)	Built by Bazán, Ferrol; laid down in 1986; launched in 1987; commissioned in 1988

Spain: Section 1 - Data

Name (Hull Number)	Notes
Reina Sofia (F 84)	Built by Bazán, Ferrol; laid down in 1987; launched in 1989; commissioned in 1990
Navarra (F 85)	Built by Bazán, Ferrol; launched in 1992; commissioned in 1994
Canarias (F 86)	Built by Bazán, Ferrol; launched in 1993; commissioned in 1994

Offshore Patrol Vessels

Serviola Class

1,103 tons full load; one 76.2mm gun, two 12.7mm machine guns; powered by two Bazán/MTU diesels; all built by Bazán, Ferrol

Name (Hull Number)	Notes
Serviola (P 71)	Commissioned in 1991
Centinella (P 72)	Commissioned in 1991
Vigia (P 73)	Commissioned in 1992
Atalaya (P 74)	Commissioned in 1992

Descubierta Class

1,575 tons full load; one Oto Melara 76mm gun, two Bofors 40mm guns, one octuple launcher for Raytheon SeaSparrow surface-to-air missiles, two or four launchers for McDonnell Douglas Harpoon anti-ship missiles, one 375mm Bofors twin-barreled trainable ASW mortar, two triple 324mm torpedo tubes

Name (Hull Number)	Notes
Diana (F 32)	Built by Bazán, Cartagena; laid down in 1975; commissioned in 1979; according to article in *El Pais*, decommissioned on May 9, 2012
Infanta Elena (F 33)	Built by Bazán, Cartagena; laid down in 1976; commissioned in 1980
Infanta Cristina (F 34)	Built by Bazán, Cartagena; laid down in 1976; commissioned in 1980
Cazadora (F 35)	Built by Bazán, Ferrol; laid down in 1977; commissioned in 1981
Vencedora (F 36)	Built by Bazán, Ferrol; laid down in 1978; commissioned in 1982

Alboran Class

1,963 tons full load; one Krupp MaK 6 M diesel; 13 knots; 20,000-nautical-mile range; two 12.7mm guns; Furuno FAR-2825 radar

Name (Hull Number)	Notes
Alboran (P 62)	Built by Freire; commissioned in 1997
Arnomendi (P 63)	Built by Freire; commissioned in 2000
Tarifa (P 64)	Built by Freire; commissioned in 2004

Anaga Class

319 tons; 16 knots; 4,000-nautical-mile range at 13 knots; one Oerlikon 20mm Mk 10.2-7.62mm machine gun; Racal Decca 1226 radar

Name (Hull Number)	Notes
Tagomago (P 22)	Commissioned in 1981
Medas (P 26)	Commissioned in 1981
Tabarca (P 28)	Commissioned in 1981

Meteoro Class (Buques de Acción Maritima, BAM)

Program for eight new multirole offshore patrol vessels under the title Buques de Acción Maritima (BAM) begun in 2004; first-batch acquisition of four vessels authorized by Spanish government on May 20, 2005; contract with Navantia followed on July 31, 2006; ships are capable of operating a helicopter and suitable for boarding / interception operations; 2,840 tons full load; two diesel engines; speed of 20.5 knots; range of 8,000 nautical miles at 12 knots; one 76mm Oto Melara gun and two BAE Systems 25mm/87 Typhoon guns

Name (Hull Number)	Notes
Meteoro (P 41)	Built by Navantia, San Fernando; laid down March 13, 2009; launched October 16, 2009; commissioned July 28, 2011
Rayo (P 42)	Built by Navantia, San Fernando; laid down September 3, 2009; launched May 18, 2010; commissioned October 26, 2011
Relámpago (P 43)	Built by Navantia, San Fernando; laid down December 17, 2009; launched October 6, 2010; commissioned February 7, 2012
Tornado (P 44)	Built by Navantia, San Fernando; laid down May 5, 2010; launched March 21, 2011; commissioned July 19, 2012
Audaz (P 45)	Built by Navantia, San Fernando; first of a second batch of BAM class OPVs contracted for by the Spanish Navy on December 5, 2014; laid down April 29, 2016; launched March 30, 2017; commissioned on July 27, 2018
Furor (P 46)	Built by Navantia, Ferrol; second of a two-ship second batch of BAM class OPVs contracted for by the Spanish Navy on December 5, 2014; laid down April 29, 2016; launched May 2017; commissioned on January 21, 2018

Coastal Patrol Craft

Toralla Class

102 tons full load; 19 knots; one Browning 12.7mm machine gun; Racal Decca RM 1070 radar

Name (Hull Number)	Notes
Toralla (P 81)	Built by Viudes, Barcelona; commissioned in 1987
Formentor (P 82)	Built by Viudes, Barcelona; commissioned in 1988

Amphibious Vessels

Strategic Projection Ship

Displacement: 27,000 tons; length: 225 meters; speed: 21 knots, 9,000-nautical-mile range at 15 knots; Link 11 combat data system; four CH-47 Chinook helicopters or up to six medium helicopters or AV-8B Harriers on flight deck; 12 helicopters or eight Harrier aircraft in hangar

Name (Hull Number)	Notes
Rey Juan Carlos I	Built by Navantia; laid down in 2005; commissioned May 2010

Galicia Class

Displacement: 9,500 tons standard/11,200 tons normal (13,815 tons full load); dimensions: 163.12 meters (145 m at waterline; 142.2 pp) x 25 meters (23.26 m at waterline) x 5.23 meters (5.90 props); speed: 20 knots; range: 6,000 nautical miles at 12 knots; two twin 20mm 70-caliber Oerlikon Mk 24 AAs, provision for two 20mm Meroka Mod 2B CIWS; Kelvin Hughes ARPA navigational radar, Lockheed VPS-2 Meroka fire control; DaimlerChrysler TRS-3D/16-ES 3D air/surface search and target design; Indra SLQ-380 Aldebarán interceptor; Mk 36 SRBOC decoy systems (four 6-round Mk 137 RLs); six helicopters; one also capable of deploying about 650 troops

Name (Hull Number)	Notes
Galicia (L 51)	Built by Izar; laid down in 1996; launched in 1997; commissioned in 1998
Castilla (L 52)	Built by Izar; laid down in 1997; launched in 1999; commissioned in 2000

Spain: Section 1 - Data

Mine Warfare Vessels

Segura Class

530 tons; 14 knots; one Bazán/Oerlikon 20mm GAM-B01 gun; Kelvin Hughes 1007 radar

Name (Hull Number)	Notes
Segura (M 31)	Built by Bazán, Cartagena; commissioned in 1999
Sella (M 32)	Built by Bazán, Cartagena; commissioned in 1999
Tambre (M 33)	Built by Bazán, Cartagena; commissioned in 2000
Turia (M 34)	Built by Bazán, Cartagena; commissioned in 2000
Duero (M 35)	Built by Izar, Cartagena; commissioned in 2004
Tajo (M 36)	Built by Izar, Cartagena; commissioned in 2005

Miscellaneous

The Navy also operates four offshore patrol ships, one inshore patrol launch, seven survey and research ships, 10 training ships (including the 1,400-ton *Intermares* that was received on July 23, 2018), one fleet replenishment ship (*Cantabria*), one fleet logistic tanker (*Patino*), one ocean tug, three transport ships, six harbor tugs, two water tankers, and two transport ships (*Martin Posadillo* and *Contramaestre Casado*)

Missiles

Air Force

Conventional Bombs		
Model	**Current Inventory**	**Notes**
BR-250, BR-500		
BRP-250		
Mk 82, Mk 83, Mk 84		

Laser-Guided Bombs		
Model	**Current Inventory**	**Notes**
BPG-2000		
EGBU-16 (Paveway II)		
GBU-10/16 (Paveway II)		
GBU-24 (Paveway III)		

Air-to-Air		
Model	**Current Inventory**	**Notes**
AGM-88A HARM		
AIM-7P Sparrow		
AIM-9L/JULI/P Sidewinder		1,236 delivered under Military Assistance Program by FY76, 256 under MAP in FY77, 192 under MAP in FY78, and 40 under MAP in FY79

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Air-to-Air		
Model	**Current Inventory**	**Notes**
AIM-120B/C AMRAAM		Used on F/A-18 Hornets
IRIS-T		Ordered for Spanish Air Force from Germany's Diehl BGT Defense as a replacement for Raytheon AIM-9 Sidewinder air-to-air missiles; integrated on the Air Force's EF-18A Hornets and Eurofighter Typhoons

Air-to-Ground		
Model	**Current Inventory**	**Notes**
AGM-65A/G Maverick		
Taurus KEPD 350		Spanish government approved the procurement of the Taurus KEPD 350 standoff guided missile system in June 2005; first two missiles were delivered to Spain on October 19, 2007; installed on Air Force's F-18 Hornets and Eurofighter Typhoons; have an operational range of 210 miles

Anti-Ship		
Model	**Current Inventory**	**Notes**
AGM-84C/D Harpoon		

Surface-to-Air		
Model	**Current Inventory**	**Notes**
Mistral		
R-530		
Skyguard/Aspide		

Army

Surface-to-Air - MANPADS		
Model	**Current Inventory**	**Notes**
Mistral	180	

Surface-to-Air - Self-Propelled		
Model	**Current Inventory**	**Notes**
Roland	18	

Surface-to-Air - Towed		
Model	**Current Inventory**	**Notes**
MIM-23B Improved Hawk Phase III		Total of 52 launchers
NASAMS	8	

Spain: Section 1 - Data

Surface-to-Air - Towed		
Model	**Current Inventory**	**Notes**
PAC 2 (Patriot 2)	8	
Skyguard/Aspide	13	

Anti-Tank - MANPATS		
Model	**Current Inventory**	**Notes**
SPIKE	39	Man-portable weapon intended to ultimately replace the MILAN as the preferred anti-tank missile option; total of 236 launchers and 2,360 missiles for Spanish Army infantry and cavalry being delivered under a EUR324 million program; further 24 launchers handed over to Marines; deliveries began in April 2010
TOW		

Anti-Tank - Self-Propelled		
Model	**Current Inventory**	**Notes**
MILAN	116	To be replaced by SPIKE missiles; retirement of MILAN missiles from service was to be completed by November 2014

Navy

Surface-to-Air - MANPAD		
Model	**Current Inventory**	**Notes**
Mistral	12	Used by Marines

Surface-to-Air - Tube-Launched		
Model	**Current Inventory**	**Notes**
RIM-162B SeaSparrow		

Anti-Tank - MANPATS		
Model	**Current Inventory**	**Notes**
TOW	24	Launchers used by Marines

Air-to-Air		
Model	**Current Inventory**	**Notes**
AIM-9L Sidewinder		
AIM-120 AMRAAM		

Anti-Ship		
Model	**Current Inventory**	**Notes**
AGM-84C/D Harpoon		
ASM-119 Penguin		

Air-to-Surface		
Model	**Current Inventory**	**Notes**
AGM-65G Maverick		

Vehicles

Army

Tanks		
Model	**Current Inventory**	**Notes**
Leopard 2A4	108	Leased from Germany through 2006; later bought outright; 24 to be transformed into armored engineer vehicles and 16 into armored vehicle-launched bridges under tentative Army plans for vehicle support platforms
Leopard 2A5E	219	Total of 219 vehicles ordered; deliveries began in 2003 and continued through 2008; built under coproduction scheme between Santa Barbara of Spain and Krauss-Maffei of Germany

Armored Reconnaissance Vehicles		
Model	**Current Inventory**	**Notes**
Iveco B-1 Centauro 8x8	84	
VEC-3562 (BMR-VEC)	202	

Armored Infantry Fighting Vehicles		
Model	**Current Inventory**	**Notes**
Pizarro	144	Spanish Army received the first 144 Pizarro tracked infantry fighting vehicles under Phase One of its program in 1996 – these included 123 IFVs and 21 command post variants; the second phase of the service's Pizarro Advanced Infantry Fighting Vehicle Program was supposed to kick off in 2003, but instead suffered continual delays due to ongoing budgetary cuts; first delivery, of 83 Pizarro IFVs, occurred in March 2017, while production and delivery of the final 36 units – all recovery and engineering variants – was to begin in late 2017

Spain: Section 1 - Data

Armored Personnel Carriers - Tracked		
Model	**Current Inventory**	**Notes**
M113	453	

Armored Personnel Carriers - Wheeled		
Model	**Current Inventory**	**Notes**
BMR-600 (M1)	312	6x6 vehicles produced by ENASA; have been operated by the Spanish Army for more than 30 years but, due to limited protection levels and carrying capacity, the Army was looking to phase these out by replacing them with a new 8x8 vehicle – this plan was effectively scrapped in 2013, however

Protected Patrol Vehicles		
Model	**Current Inventory**	**Notes**
RG-31 Nyala	110	100 of these 4x4 vehicles ordered from BAE/General Dynamics on September 3, 2008, at an estimated cost of EUR64.6 million; referred to as Nyala in Spanish service; 10 are in ambulance variants and five are in the command post configuration

Self-Propelled Artillery		
Model	**Current Inventory**	**Notes**
155mm M109A5	96	First delivered in 1971

Armored Engineering Vehicles		
Model	**Current Inventory**	**Notes**
CZ-10/25E		

Armored Recovery Vehicles		
Model	**Current Inventory**	**Notes**
BMR 3560.55		
Iveco Centauro	4	The four 30-ton Centauro armored recovery vehicles were ordered in September 2007 and delivered in July 2011, with two vehicles handed over to the 2nd Cavalry Brigade and the two others provided to the 7th Light Brigade
M47-VR	22	
M88A1	1	
Pizarro	9	Recovery model of the AIFV
Rheinmetall Landsysteme Büffel	16	First four produced in Germany; remaining 12 manufactured under license by General Dynamics Santa Barbara Sistemas

Vehicle-Launched Bridgelayers		
Model	**Current Inventory**	**Notes**
M-60	12	
VPLD 26/70 E		

Trucks		
Model	**Current Inventory**	**Notes**
Land Rover 4x4		Supplied by U.K./Spain
M35/44		Supplied by U.S.
M37 (3/4 ton)		Supplied by U.S.
M54 (5-ton)		Supplied by U.S.
M123 Tractor		Supplied by U.S.
M151 Jeep		Supplied by U.S.
M274 Mule		Supplied by U.S.
M606/CJ Jeep		Supplied by U.S./Spain
M809 Series (5-ton)		Supplied by U.S.
Pegaso 2040 Tractor		Supplied by Spain
Pegaso 2046		Supplied by Spain; 4x4, 3,000-kilogram truck
Pegaso 3045		Supplied by Spain; 4x4, 3,000-kilogram truck
Pegaso 3050		Supplied by Spain; 6x6, 6,000-kilogram truck
Talbot/Barreiros R-3464		Supplied by Spain/U.K.
URO-MT-149		Heavy-duty truck; 11.6 tons

Support Vehicles		
Model	**Current Inventory**	**Notes**
VAP 4x4		Amphibious logistic support vehicle produced by ENASA, Spain

Marines

Tanks		
Model	**Current Inventory**	**Notes**
M60 A3TTS	16	Ex-U.S. Army

Armored Personnel Carriers		
Model	**Current Inventory**	**Notes**
MOWAG Piranha III 8x8 LAV	39	In 2002, the Spanish Ministry of Defense placed an order with Switzerland's MOWAG (a subsidiary of General Motors Canada) for 18 Piranha III 8x8 light armored vehicles – these were delivered between 2003 and 2004; second batch of 21 amphibious Piranha IIICs ordered in January 2008; first four units of this second batch were delivered in 2010, with remaining deliveries running through 2014; first batch of 18 Piranha version-1 units being upgraded to version 2 under a EUR9.9 million deal announced by GDELS on September 18, 2018, with work to be completed by 2021

Spain: Section 1 - Data

Assault Amphibious Vehicles		
Model	**Current Inventory**	**Notes**
AAV-7A1/AAVP-7A1	16	FMS request for 11 additional AAV-7s worth $107 million approved by State Department, with notification of the possible sale sent to Congress on March 14, 2019
AAVC-7A1	2	
AAVR-7A1	1	Armored amphibian recovery vehicle

Self-Propelled Artillery		
Model	**Current Inventory**	**Notes**
155mm M-109A2	6	

Ordnance

Army

Anti-Aircraft		
Model	**Current Inventory**	**Notes**
35mm GDF-005	91	Twin mounts

Guns/Howitzers		
Model	**Current Inventory**	**Notes**
105mm L-118	56	
105mm M56	168	Pack howitzer
155mm M-114	41	
155mm SBT 155/52 APU SBT V07	19	Integrated with the Coastal Artillery Group after being retrofitted from the V06 to the Obus 155/52 standard V07 version as part of November 2005 contract with General Dynamics Santa Barbara Sistemas
155mm SBT 155/52 SIAC	64	Spanish Army awarded a EUR181 million contract to General Dynamics Santa Barbara Sistemas in November 2005 for the supply of 70 155mm, 52-caliber APU SBT and SIAC towed howitzers

Mortars		
Model	**Current Inventory**	**Notes**
81mm	777	Plus Israeli-made Cardom 81mm mortar systems mounted on the back of VAMTAC 4x4 wheeled vehicles produced by Spain's UROVESA
120mm	402	Plus another 205 self-propelled versions

Multiple Rocket Launchers		
Model	**Current Inventory**	**Notes**
140mm Teruel	14	Being decommissioned to make way for 155mm/52-caliber field guns; locally built Teruel has been in service since the mid-1980s

Rocket Launchers		
Model	**Current Inventory**	**Notes**
90mm C-90C		Used by Marines

Rifles		
Model	**Current Inventory**	**Notes**
5.56mm CETME L		Total of 59,033 ordered; in service since 1989
5.56mm Heckler & Koch G36E Assault Rifle		NATO-standard assault rifle adopted by Spanish Army in 2001
7.62mm CETME		

Machine Guns		
Model	**Current Inventory**	**Notes**
7.62mm MG-3		

Navy

Guns/Howitzers		
Model	**Current Inventory**	**Notes**
105mm M56	12	Pack howitzer used by Marines; built by Oto Melara

Guns/Rocket Launchers		
Model	**Current Inventory**	**Notes**
90mm C-90C		Used by Marines

Electronics

Air Force

Countermeasures		
Model	**Current Inventory**	**Notes**
Indra InShield DIRCM		Directional Infrared Countermeasures (DIRCM) system developed by Indra; starting in 2017, being deployed on Spain's A400Ms

Radar		
Model	**Current Inventory**	**Notes**
APG-65		For F-18 aircraft; produced by Hughes Aircraft Co, Culver City, California
Combat Grande IV		Latest update of territorial air surveillance network
TPS-43E(S)		Commercial license approved in 1982 for one TPS-43E(S) radar valued at $4 million

Spain: Section 1 - Data

Radios		
Model	**Current Inventory**	**Notes**
ARC-164(V)		
ARC-182(V)		

Army

Battle Management System		
Model	**Current Inventory**	**Notes**
BMS-Lince ET		Jointly developed by Indra and Thales for integration on the Spanish Army's Lince armored vehicles; integration work began in 2018 and the new battlefield management system is to be fully operational by year-end 2020; system will be fitted on the entire range of Army military vehicles

Radar		
Model	**Current Inventory**	**Notes**
ARTHUR		Four hostile-artillery-locating and mortar-locating radar systems purchased under EUR69.1 million contract awarded to Sweden's Saab Microwave Systems on November 17, 2006; deliveries began in 2007 and were completed in April 2009
Sentinel RMK1 (Airborne)		
TPQ-36 Firefinder		

Radios		
Model	**Current Inventory**	**Notes**
PR4G F@stnet Radios		Produced by Thales; purchased under EUR180 million contract in 2008

Navy

Radar		
Model	**Current Inventory**	Notes
Searchwater Radar		Equips three Sea King helicopters

Sonar		
Model	**Current Inventory**	**Notes**
SQR-19		Deployed on Santa Maria class frigates; produced by Gould Inc, Glen Burnie, Maryland

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