

GAO

Report to the Chairman, Subcommittee  
on Oversight of Government  
Management, Committee on  
Governmental Affairs, U.S. Senate

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September 1994

# COMMERCIAL PRACTICES

## Opportunities Exist to Enhance DOD's Sales of Surplus Aircraft Parts



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United States  
General Accounting Office  
Washington, D.C. 20548

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National Security and  
International Affairs Division

B-257675

September 23, 1994

The Honorable Carl Levin  
Chairman, Subcommittee on  
Oversight of Government Management  
Committee on Governmental Affairs  
United States Senate

Dear Mr. Chairman:

As you requested, we reviewed how the Department of Defense (DOD) markets and sells its surplus and scrap aircraft parts to the general public. Our objectives were to (1) compare DOD's practices for selling usable surplus parts with those used by the private sector and (2) identify any private sector practices DOD could adopt to maximize sales of usable aircraft parts and minimize improper use of scrap parts once they are sold.

## Background

In fiscal year 1993, DOD sold about 15 million usable aircraft parts with an acquisition value of over \$1.8 billion to the general public through its surplus sales program. Usable aircraft parts are those that have value greater than their basic material content and have potential to be used for the originally intended purpose. DOD also sold over 45 million pounds of scrap aircraft parts to the general public—parts that are not intended for use and are sold for their metal content value. DOD's proceeds from the sale of both usable and scrap aircraft parts during fiscal year 1993 were about \$23 million.

DOD's surplus sales program is managed by the Defense Reutilization and Marketing Service, a part of the Defense Logistics Agency. Once military aircraft parts are declared excess to DOD's needs, they are sent to one of DOD's approximately 200 worldwide Defense Reutilization and Marketing Offices (DRMO), or disposal yards, where they are made available for reutilization, transfer, donation, and sale. According to DOD officials, the five DRMOs in the United States that handle the largest volumes of excess aircraft parts are located in Warner Robins, Georgia; San Antonio, Texas; Oklahoma City, Oklahoma; Ogden, Utah; and Sacramento, California. Once usable and scrap aircraft parts become available for sale, they are termed surplus and are generally advertised nationally in catalogs and sold through sealed bids or auction methods by the National Sales Office.

Some usable aircraft parts DOD sells as surplus are military-unique parts while others (referred to as commercial-type parts) have applications to aircraft used in civil aviation. For example, the Air Force's KC-135 air refueling tanker is essentially a modified commercial Boeing 707 that has many of the same engine and airframe parts. Many private sector companies, such as commercial airlines and aircraft parts manufacturers, also sell surplus aircraft parts as usable and scrap when they are no longer needed.

All parts used in civil aviation are required to be certified by the Federal Aviation Administration (FAA), meaning that the design for the part and the manufacturer's production process met FAA's approval. While many military parts are the same as their commercial counterparts, they are not generally FAA certified because DOD specifies requirements for the design, production, and acquisition of parts used on military aircraft. According to FAA and engine manufacturing officials, many DOD commercial-type parts have the potential to be retroactively certified once the parts have been determined to conform to the FAA-approved design and manufacturing process.

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## Results in Brief

In fiscal year 1993, DOD's proceeds from the sale of commercial-type surplus aircraft parts averaged less than 1 percent of what DOD paid for them. In contrast, commercial airlines realize proceeds on the order of 40 to 50 percent (based on the price of the part brand new) from the sale of comparable parts. The large difference in proceeds reflects the different incentives and marketing practices at work within DOD and the private sector. DOD's system for selling surplus aircraft parts is largely driven by policies and procedures designed primarily to dispose of the parts quickly. Maximizing sales proceeds is of lesser importance. There are few incentives for DOD, particularly the disposal staff, to effectively market and optimize the prices received for the parts. Currently, proceeds from the sale of surplus parts are deposited in the U.S. Treasury Defense Business Operations Fund and are not returned to the disposal offices to enhance their operations. Similarly, little emphasis is placed on the training of disposal staff on the parts they are selling and the markets they are selling to.

While not always directly comparable to DOD, commercial airlines have a system for selling surplus aircraft parts that reflects the profit incentive. The airlines we interviewed expect to obtain reasonable rates of return on the surplus aircraft parts they sell. They are concerned less with how

quickly the property moves off the warehouse shelves. Officials from one airline told us they often receive as much as 50 percent of the manufacturer's list price (the price of the parts brand new) from the sale of their surplus aircraft parts. Progressive commercial airlines provide the tools for their staff to maximize sales proceeds in the form of both the training and the resources required to effectively sell the property.

Commercial companies use marketing techniques that substantially enhance the visibility and marketability of their parts, including (1) identifying highly marketable commercial-type parts, (2) selling the parts as FAA certified, (3) arranging parts into sales groupings that meet buyer needs, and (4) actively marketing the parts to a full spectrum of civil aviation buyers.

While it may not be practicable for DOD to duplicate commercial marketing techniques, it appears that DOD could substantially increase its proceeds by adopting some basic marketing practices. Critical to the success of such practices, however, will be some establishment or realignment of incentives.

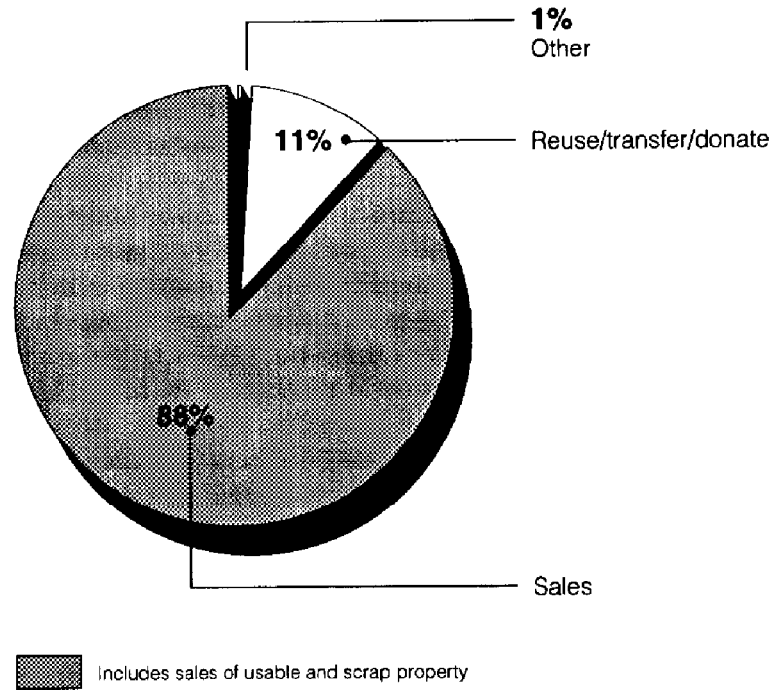
During our review, we also uncovered an opportunity for DOD to minimize improper use of scrap parts by adopting private sector practices. The U.S. Department of Transportation has found instances where DOD aircraft parts, sold as scrap, illegally reentered civil aviation as usable. Unlike some progressive commercial companies, DOD does not have procedures to prevent the improper use of scrap once it is sold. Also, DOD does not mutilate or destroy many of the flight-critical scrap parts that it sells and does not require the buyer to warranty or certify that all scrap parts purchased will be used only as such. Adopting similar processes and procedures of progressive commercial firms could possibly minimize this risk.

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## Differences Between DOD and Private Sector Disposal Systems

DOD maintains a complex disposal system that is characterized by massive volumes of excess property. DOD's primary disposal objective is to maximize the reuse of surplus property within the military services, various levels of government, and with authorized donees before offering the property for sale to the general public. Despite this goal, DOD actually sells most of its surplus property to the general public as shown in figure 1.

**Figure 1: DOD's Methods of Disposing Surplus Property in Fiscal Year 1993**



In practice, DOD's disposal system is often geared more toward moving the property within established time frames. Less emphasis is placed on maximizing proceeds for the surplus parts being sold. With increasingly large volumes of surplus property being disposed, a priority at the four DRMOs we visited was to move property as quickly as possible to make room in the warehouses for incoming property. DOD recently instituted the single-cycle process which, among other things, reduced the time frames for storing and selling surplus property, leaving less time to effectively market the property.

DOD disposal staff also lack sufficient resources and incentives to effectively market and sell the surplus property. DOD's disposal system is not designed to recognize the worth of the parts disposed and to maximize proceeds from the sale of such parts. DOD disposal staff are not specialized in selling strictly aircraft parts and have limited training and technical knowledge of such property entering the disposal system for sale.

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Proceeds obtained from the sale of surplus parts are deposited in the U.S. Treasury Defense Business Operations Fund. Thus, individual disposal offices do not benefit monetarily for extra efforts made to enhance sales. According to one supervisor we interviewed, DRMOs could benefit from increased funding to purchase updated equipment and hire additional staff.

The disposal systems of commercial airlines and other private sector companies that we interviewed are much different than DOD's system, which is based on statutory requirements. For example, the airlines we interviewed place special emphasis on selling surplus property and create incentives for employees to maximize the action on sales. These companies expect to obtain reasonable proceeds from the surplus aircraft parts they sell, and are less concerned with how quickly the property moves off the warehouse shelves. To maximize sales proceeds, staff are trained to understand aircraft parts terminology and the applications that exist for various parts. This training and experience makes it more likely that highly marketable parts will be identified and marketed appropriately. Further, the staff often specialize in selling a specific category of part, such as engine parts, to promote a better understanding of the parts and the markets to which they sell.

In addition, progressive commercial companies provide employees with the resources to effectively sell the property. Marketing staff are provided a wide range of sales tools and techniques and are held accountable for the property they intend to sell. At one airline, for example, sales personnel are responsible for the sale of the surplus property and are rated on how well they maximize sales proceeds.

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## **Commercial Airlines Realize Higher Proceeds From the Sale of Surplus Parts**

Commercial companies have been far more successful than DOD in maximizing proceeds from the sale of surplus aircraft parts. For example, United Airlines officials said that they often receive 50 percent of the manufacturers' list price, the price of the part brand new, from the sale of their surplus aircraft parts. While this basis for calculating the rate of return is not directly comparable to DOD's, a United Airlines official said that in many instances their rate of return would be even higher if it was based on a part's acquisition cost because the price of a brand new part at the time of sale is often higher than what the airline originally paid for it. Similarly, Delta Airlines officials said that they generally receive 40 to 50 percent of the manufacturers' list price from the sale of their surplus parts. According to company officials, Delta Airlines has a pricing policy

for surplus aircraft parts and will scrap certain parts if the company cannot obtain a minimally set rate of return.

In fiscal year 1993, DOD's rate of return from such parts—expressed as the ratio of sales proceeds to the part's acquisition cost—has been low, averaging less than 1 percent (see table 1 for examples). This rate for aircraft parts is lower than the average 2-percent return DOD received for all of its surplus property.

**Table 1: Examples of Commercial-Type DOD Parts Obtaining Less Than a 1-Percent Rate of Return**

Quantity and description of part	Acquisition cost	Sales proceeds	Rate of return
8,258 Turbine engine sets (never used)	\$1,041,417	\$2,890	0.28%
72 Turbine shafts (never used)	785,952	1,529	0.19%
22,479 Vane compressor stators (never used)	271,023	669	0.25%
117 Shaft outputs (never used)	488,007	1,633	0.33%

For several reasons, it may be difficult for DOD to match the surplus part prices obtained by the commercial airlines or surplus parts dealers. The airlines have an inherent marketing advantage because their surplus parts are, by definition, all commercial-type and FAA certified, whereas many of DOD's parts are not. Nonetheless, higher sales proceeds appear possible for DOD's parts. Data we obtained suggests a sizable portion of DOD's surplus aircraft parts have applications to civil aircraft—the types of parts commercial airlines sell. At our request, the Air Force identified, in one of DOD's 1993 sales catalogs, that 20 out of 108 different type parts offered (or about 18 percent) were commercial-type. Examples of such parts are shown in table 2.

**Table 2: Examples of DOD Parts Found to Have Commercial Applications**

DOD part and part number	Military application	Commercial application
Blade sets (part number 410033)	TF-33 jet engine	JT-3D jet engine
Support assemblies (part number 204-001-178-11)	H-1 helicopter	Bell Model 205 and 214B helicopters
Adapter input control (part number 70301-02115-102)	H-60 helicopter	Sikorsky S-70C helicopter
Tail boom ballast (part number 206-032-420-3)	OH-58 helicopter	Bell Jet Ranger B model and L-1 model
Spacer airseal (part number 777883CL3)	TF-33 jet engine	JT-3D jet engine



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In addition, many of the surplus parts DOD sells have never been used and some are still in their original packaging from the manufacturer. Our review of three 1993 sales catalogs showed that over 89 percent of the parts being sold had never been used.

To test whether DOD could get better prices for its parts, we requested private sector quotes for 10 different (but never used) commercial-type parts that DOD sold in 1993. In all instances, the private sector asking price was much higher than what DOD obtained for the same parts. For example, DOD sold

- 238 unused jet engine combustion chamber liners for \$6.78 each, the surplus market price quoted for the same part was \$900 each;
- 72 unused turbine shafts for \$21 each, the quoted surplus market price for the same part was \$8,910 each;
- 8,258 unused helicopter blade sets for 35 cents each, the quoted surplus market price for these blade sets was \$185 a set; and
- 3,400 unused servocylinder assemblies for \$2.22 each, the quoted surplus market price for these assemblies new was \$2,155 each.

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## Adopting Private Sector Practices Could Enhance Sales Proceeds

Commercial airlines and other private sector companies use marketing techniques that significantly enhance the visibility and marketability of its parts. Opportunities exist for DOD to increase proceeds from the sale of surplus aircraft parts by adopting these kinds of practices, including

- identifying highly marketable commercial-type parts and the civil applications to which they apply,
- informing buyers about whether the parts have potential for FAA certification and providing buyers with necessary documentation to assist in this process,
- keeping parts separate at the time of sale or grouping like parts together, and
- using active marketing techniques that reach a wide audience.

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## Identifying Commercial-Type Parts and Applications

Commercial airlines have adopted practices that help identify those parts having the highest sales potential. While all the surplus parts airlines sell are commercial-type, United Airlines officials told us that special efforts are made to identify the most highly marketable parts prior to sale. Warehouse personnel, largely through their specialized experience and training in aircraft parts, identify parts that have a high demand or

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command a high price and place them on a special listing for marketing purposes. This information is provided to the marketing staff so they will know what parts to highlight in their sales efforts.

Although DOD sells both commercial-type and military-unique parts as surplus, its procedures do not require that both types of parts be differentiated in the national sales catalogs that are sent to prospective bidders. We found that commercial-type and military-unique parts are sold in the same manner, frequently advertised in the sales catalog on the same page and sometimes even in the same sales lot. As a result, commercial-type parts with high sales potential may be lost in the advertising of all parts and not recognized by prospective bidders. This practice could impact adversely on the sales value of many of DOD's commercial-type parts because buyers often must take considerable time and effort to identify such parts and many buyers are not willing to go through this effort.

Even though DOD guidance suggests that civil applications of parts be identified for prospective buyers, the sales catalogs only disclose the military applications of parts. One 1993 sales catalog we reviewed did not have any instances where the civil application was provided with the description of the commercial-type part. Without information on civil applications, fewer bidders may be interested in participating in the sale because they will have to determine the applications for themselves.

Disposal staff mostly rely on information provided by the military services when the parts are disposed to help them determine what information should be included in the sales catalogs. Such information generally includes part name, part number, national stock number, military application, condition, quantity, acquisition cost, weight, and location. The services are not required, however, to identify the commercial-type parts and their applications and do not provide this information at the time of disposal. According to DOD officials, this type of information is not formally maintained by the military services; however, it could be pulled together from several different sources, starting with contracting officials, item managers, and equipment specialists. They were concerned about the additional costs that would be required to do this.

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## Identifying FAA Certified Parts

DOD disposal staff are not required to identify those parts that are FAA certified or have the potential to be retroactively certified by the buyer. Presently, DOD disposal staff leave it up to the buyer to determine whether

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a part is certified or can be made so retroactively. United Airlines and Delta Airlines officials told us that they believe DOD is greatly diminishing the value of the parts that are certified (or could readily be made so) when remaining silent with regard to FAA certification. Without DOD's assessment, prospective buyers must devote time and resources to determine whether parts can be certified and assume risks that they may not be.

Buyers' efforts to have a part recertified can also be made more difficult because DOD does not provide documentation, such as manufacturer records or, in many instances, operation and maintenance records that help with this process. Over 75 percent of 17 buyers we interviewed that resell DOD parts to U.S. civil markets indicated that DOD did not provide enough documentation. Without such information, buyers are left not knowing whether a part can be certified, thereby increasing the risks to the buyer, which is often reflected in lower bids for the parts.

FAA officials and aircraft manufacturers that we interviewed also expressed views that DOD could obtain higher sales proceeds from the parts that are certified or can be made so. These officials, however, were less optimistic about those parts that could not be certified and did not believe such parts should enter the civil aviation market.

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### Placing Like Parts Together in the Same Sales Lots

To enhance sales value potential and increase sales proceeds, commercial airlines we visited place similar parts into sales lots or groupings that allow greater buyer flexibility. For example, Delta Airlines and United Airlines officials told us that they rarely mix used and unused property together for sale. A Delta Airlines official estimated, from past experience, that mixing used and unused parts together could reduce the value of the sales lot by as much as 15 percent because buyers generally prefer either used or unused parts, but generally not both.

Further, these airlines rarely mix parts produced by different manufacturers in the same sales lots because buyers tend to specialize by a single manufacturer. According to a Delta Airlines official, mixing parts from unlike manufacturers reduces the value of the lot because buyers will often base their bid on only those parts from the manufacturers in which they specialize, ignoring the value of the parts that are not of interest to them.

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Currently, DOD's procedures allow the placement of multiple parts into a sales lot when it is uneconomical to sell the parts individually. Our review of three 1993 DOD sales catalogs showed that over 50 percent of the parts offered for sale were lotted in this way. For example, one DOD sales lot contained 71 total parts consisting of 7 different types of parts. DOD requires that bids be made on the complete lot and does not allow the grouping to be broken up when a bidder is only interested in a few of the parts. While DOD's procedures allow for sales lotting, the procedures stipulate that DOD not mix property with unlike conditions and different manufacturers together for sale. Despite this, our review of the three catalogs, representing 219,686 parts with acquisition values totaling about \$151 million, showed that 17 percent of the sales lots mixed used and unused parts together and 21 percent of the lots consisted of parts produced by different manufacturers.

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### Identifying and Attracting More Diverse Buyers

Both private sector sellers of surplus aircraft parts and commercial airlines have employed various successful strategies for identifying new customers and seeking a wider spectrum of potential civil aviation buyers. For example, private sector sellers we interviewed are more active than DOD in marketing and contacting prospective customers to generate interest in their parts. These companies sell to brokers as well as other types of buyers, such as manufacturers and end users. One private sector seller—57th Aerospace Group—targets its marketing strategies to those buyers who will most likely have an interest in the part being offered for sale. According to a company official, the marketing staff research the part to identify civil aviation buyers who use or resell the part and then contact such potential buyers to generate interest and inform them of their sales offering. Delta Airlines also uses the same approach in that it often uses targeted mailings to those customers that typically buy the type of surplus being offered.

Private sector sellers of surplus aircraft parts also rely heavily on computerized inventory locator systems to gain widespread visibility in marketing their surplus. 57th Aerospace Group makes use of an automated inventory locator service and finds it to be a cost-cutting tool because it provides an instantly accessible market that is available 24 hours a day, making it easier to locate potential buyers for their parts. For a fee, the on-line system facilitates the selling of surplus aircraft parts by matching prospective buyers with companies that are selling the parts. According to Delta Airlines and Trans World Airlines officials, their companies also use

an automated inventory locator system and find it to be highly effective in finding buyers who are interested in the parts being sold.

DOD officials told us that basically the same buyers repeatedly participate in DOD sales. Active bidders comprise less than 1 percent of prospective buyers on DOD's mailing list. Furthermore, DOD attracts mostly brokers and dealers who are more willing to conduct the research on the parts and take the risks associated with buying uncertified parts. We interviewed 26 buyers of DOD surplus aircraft parts and found that 88 percent of the buyers resell them as usable property. While our analysis represents only a sample of buyers from one sale, DOD officials told us that brokers and distributors are the major buyers of their surplus parts.

DOD disposal staff often do not have the time or resources needed to generate interest from prospective buyers who already are on their mailing list and others that are not on the list. DOD's marketing initiatives are often limited to sending out sales catalogs to bidders on its mailing list. According to one DOD official, this approach, used by itself, ignores potential customers that are not on the mailing list.

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## DOD Initiatives to Improve Sales

DOD is reevaluating its marketing program for all surplus property, including aircraft parts. DOD has explored a number of initiatives to improve sales, such as (1) increasing advertising in trade journals and on radio and television, (2) expanding the use of credit card sales, (3) offering simpler sales terms and conditions, (4) conducting "how to buy" seminars, and (5) establishing customer surveys and a toll-free information number. DOD has also developed long-range plans that include identifying commercial practices for its sales program.

Even though DOD is making efforts to improve its marketing of surplus property, we believe it will continue to realize low sales proceeds from the sale of commercial-type aircraft parts unless additional steps are taken to (1) identify and actively market such parts, (2) provide buyers with important information on commercial applications and FAA certification potential, and (3) separate unlike parts prior to a sale. DOD officials have told us they have begun to explore some of these practices.

We believe the previously mentioned practices are feasible for the commercial-type parts that DOD sells, especially since most of the practices involve obtaining information that already exists at the military services'

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level. By adopting commercial practices, DOD will likely benefit by obtaining much higher sales proceeds for its parts.

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## Adopting Private Sector Practices for Scrap Parts

During our review, we also noted that an opportunity existed for DOD to minimize improper use of scrap parts by adopting private sector practices that control such parts. Typically, the service life of such parts has expired, or the parts have been damaged, thereby rendering them unusable. FAA and DOD officials believe that scrap parts could pose safety hazards and should not be used on civil aircraft.

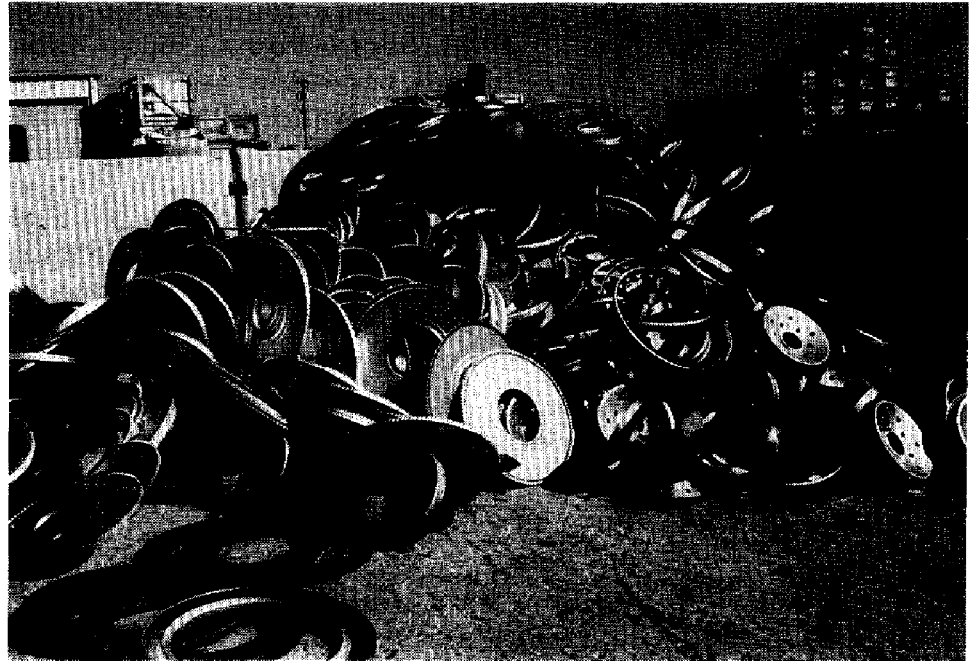
While DOD has provisions to ensure that aircraft parts posing a national security risk are mutilated and parts posing a product safety risk are destroyed prior to sale, thousands of scrap aircraft parts do not fall under these provisions. According to DOD officials, no controls exist for the scrap aircraft parts that, on the surface, do not pose a safety risk, but which may in fact present a risk if improperly used or misrepresented by the purchaser as usable. According to officials from FAA and the Department of Transportation's Office of Inspector General, financial motives can lead unscrupulous individuals to illegally refurbish or clean up DOD scrap aircraft parts and pass them off in the civil aviation market as usable. Such parts, which would cost thousands of dollars if usable, can be acquired for pennies per pound as scrap.

According to the Transportation Inspector General officials, specific cases have been found where scrap military aircraft parts have been made to look usable and were resold in the civil aviation market as such. For example, a federal indictment issued in 1991 charged that an aircraft parts distributor misrepresented severely worn military aircraft parts as usable. According to a Transportation Inspector General official, the parts were bought as scrap. The aircraft parts distributor, who pleaded guilty to the charges, took ownership of several military combustion liner assemblies in scrap condition. The distributor attempted to refurbish these assemblies by welding the cracks and in other ways making the assemblies appear serviceable. According to a Transportation Inspector General official, the company also modified the assemblies by drilling an additional hole in the liners so that they would fit the civil version of the jet engine and sold them to a civil aviation industry customer for reuse.

FAA officials told us they believe that DOD could take additional precautions to ensure that its scrap parts do not reenter the civil aviation market as usable. DOD is not required to and does not mutilate many of the

flight-critical scrap parts that it sells. This sometimes leaves scrap parts with the appearance of being in good condition and usable. One disposal yard we visited had piles of scrap parts that appeared as if they were usable, as shown in figure 2. The supervisor told us that improper reuse of the parts could potentially occur because some of the parts looked as if they had never been used.

**Figure 2: Scrap Pile of Surplus Aircraft Parts**



DOD also does not require a scrap warranty from its buyers of scrap parts. Scrap warranties are contractual documents signed by the buyer, which certify that scrap parts will be used only as scrap and will not be resold as usable. While DOD requires its defense contractors to obtain these warranties for the military aircraft parts they sell as scrap, DOD does not require the DRMO to obtain them from buyers of scrap parts because, according to DOD officials, the agency does not view these parts to be at risk of misuse.

In contrast, officials from United Airlines and Pratt & Whitney, an aircraft engine manufacturer, told us they require that scrap warranties be

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completed for all aircraft scrap leaving their facilities. According to a United Airlines official, the company obtains legally binding scrap warranties from scrap purchasers, giving the company some control over the final disposition of the scrap parts it sells. The agreement guarantees that scrap will be used only as such and provides a vehicle through which United Airlines could pursue legal remedies if scrap parts are sold as usable. United Airlines also goes one step further by having an employee monitor the status of the scrap by visiting the buyer.

In addition to obtaining scrap warranties, United Airlines and Pratt & Whitney require that good condition and high-risk scrap, such as engine parts, be mutilated prior to sale. In-house mutilation of critical scrap parts provides further safeguards that such parts can never be reused and pose a threat to civil aviation safety. To help its disposal officials better mutilate scrap engine parts, Pratt & Whitney created a guide to parts mutilation. This guide demonstrates through diagrams how certain important engine parts should be mutilated prior to sale as scrap. Such practices guarantee that scrap parts are not salvaged from scrap piles and misrepresented as usable. According to DOD officials we interviewed, the time and cost of mutilating all DOD scrap aircraft parts would be prohibitive.

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## Recommendations

We recommend that the Secretary of Defense explore ways of providing greater financial incentives to enhance proceeds from the sale of usable surplus parts. One alternative would be to return a portion of the proceeds, generated from the sale of such parts, to both DRMOS and the National Sales Office to help them carry out the operation of disposal activities more effectively. The additional funds could be used to enhance the expertise of disposal staff and familiarize them with all aspects of the surplus aircraft parts market that commercial airlines have found to be successful.

We also recommend that the Secretary of Defense direct the Director of the Defense Logistics Agency, in conjunction with the military services, to conduct a program to determine how (1) commercial-type aircraft parts and their civil applications can best be identified for DOD disposal staff and (2) parts that conform to an existing FAA certification or have potential to be FAA certified can be identified for DOD disposal staff and relevant information forwarded with the part. DOD could take a phased approach by initially testing these practices at a few DRMOS before determining their applicability to DOD's entire disposal system.



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In addition, we recommend that the Director of the Defense Logistics Agency conduct a program to test commercial marketing practices that could enhance sales of surplus aircraft parts. Among the practices that the agency should include in its test are

- separating commercial-type parts into sales lots that do not mix unlike conditions and manufacturers,
- actively marketing these parts to a wide spectrum of potential customers, and
- providing the technical training necessary for staff so they will know the parts they are selling and the markets they are selling to.

Because it is possible that DOD may incur additional costs in applying these practices, this program could also initially test them at a few DRMOS with the goal of identifying and selecting those that will yield the greatest benefits at the minimum cost.

With respect to DOD's scrap parts, we also recommend that the Director of the Defense Logistics Agency (1) secure from buyers a warranty that stipulates DOD parts sold as scrap will be used only as such and not resold as usable and (2) assess the cost-effectiveness of mutilating scrap parts in-house, especially those most vulnerable to being reused in the civil aviation market.

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## Agency Comments and Our Evaluation

In commenting on a draft of this report, DOD agreed with all of our findings and recommendations. DOD pointed out that, although there are inherent differences in the disposal of surplus property between DOD and the commercial sector, the agency has begun addressing many of the recommendations for increasing sales proceeds. For example, during fiscal year 1995, the Defense Reutilization and Marketing Service is expected to assess the feasibility of identifying parts with potential commercial application or for FAA certification.

In addition, DOD has changed lotting techniques and marketing strategies to open new market opportunities, including direct buys by original equipment manufacturers and airlines. A statement of work has been issued to commercial contractors for the marketing of aircraft parts at several locations. In the area of scrap aircraft parts, the Defense Reutilization and Marketing Service has developed warranty language covering both the sale and resale of scrap and is assessing the cost-effectiveness of mutilating scrap aircraft parts on a continuing basis.

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While DOD agreed with the overall recommendation of exploring ways to increase sales proceeds, it voiced several concerns regarding the practicality of returning proceeds to individual DRMOS. DOD officials cited concerns that DRMOS selling large quantities of surplus aircraft parts would have an advantage over and would be rewarded at the expense of smaller DRMOS. We believe that this obstacle could be overcome by, for example, linking incentives to increased rates of return from the sale of surplus parts as well as to the volume of proceeds.

Also, DOD stated that most surplus parts are sold centrally by the National Sales Office rather than by individual DRMOS. In our opinion, both DRMOS and the National Sales Office play different, yet important, roles in their efforts to enhance proceeds from the sale of surplus parts. Therefore, any incentives that DOD explores should be attractive to both offices in the capacity in which they currently operate. We have recognized these roles in the recommendations section of the report.

We recognize that DOD is faced with inherent difficulties in trying to balance the competing disposal objectives of maximizing sales proceeds, reusing surplus parts and equipment effectively, and moving surplus property quickly. Nonetheless, we believe that by exploring different ways of incentivizing disposal activities, even on a limited test basis, DOD could realize the desired financial benefits. DOD's complete comments are provided in appendix II.

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Unless you announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time, we will send copies to the Secretaries of Defense, the Air Force, the Army, and the Navy; the Directors of the Defense Logistics Agency and the Defense Reutilization and Marketing Office; and interested congressional committees. We will also make copies available to others on request.

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Please contact me at (202) 512-8412 if you or your staff have any questions concerning this report. Other major contributors to this report are listed in appendix III.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Donna Heivilin". The signature is written in a cursive style with a large initial "D".

Donna M. Heivilin  
Director, Defense Management and  
NASA Issues

# Scope and Methodology

To identify how the Department of Defense (DOD) sells and markets its surplus aircraft parts, we performed work at the Office of the Assistant Secretary of Defense, Production and Logistics, Washington, D.C.; the Defense Logistics Agency, Alexandria, Virginia; the Defense Reutilization and Marketing Service, Battle Creek, Michigan; and the Defense Reutilization and Marketing Service National Sales Office, Memphis, Tennessee. To obtain information on how surplus parts are received and arranged for sale, we performed work at four Defense Reutilization and Marketing Offices (DRMO), located in Memphis, Tennessee; Oklahoma City, Oklahoma; Warner Robins, Georgia; and Wurtsmith, Michigan. In addition, we met with officials from the Federal Aviation Administration (FAA) and the U.S. Department of Transportation to discuss the legal and regulatory issues that may affect the selling of DOD surplus aircraft parts to the civil aviation market.

To determine what information the military services had on surplus aircraft parts, we visited the Wright-Patterson Air Force Base, Dayton, Ohio; the Warner Robins Air Logistics Center, Warner Robins, Georgia; and the Army's Tank-Automotive Command, Warren, Michigan. To identify commercial-type surplus aircraft parts from one 1993 DOD sales catalog, we contracted with the U.S. Air Force Materiel Command Cataloging and Standardization Center, Battle Creek, Michigan. The methodology it used in assessing the parts included

- reviewing Air Force technical orders to obtain information on the military uses of the parts,
- reviewing vendor catalogues for (1) interchangeability on the parts and (2) other information suggesting a commercial application exists for the parts,
- contacting manufacturers of the parts, and
- contacting distributors of new aircraft parts.

To obtain buyer views of DOD's selling and marketing practices, we contacted 26 buyers that often buy DOD surplus aircraft parts. These buyers, listed in table I.1, represented individuals or companies that purchased aircraft parts during DOD's July 1993 national sale.

**Appendix I  
Scope and Methodology**

**Table I.1: List of 26 DOD Surplus Aircraft Buyers We Contacted**

Aeronautical Instrument and Radio (New Jersey)	Consolidated Aeronautics (California)
Air Technology, Inc. (Florida)	D G Airparts (Oregon)
Alamo Aircraft Supply, Inc. (Texas)	El Dorado Aircraft Supply (California)
Alden Sales Co. (Virginia)	Equipment and Supply Co. (North Carolina)
Allstate Helicopters, Co. (Texas)	General Electric Co. (Massachusetts)
American Aerial Sales, Inc. (Texas)	Lee Air Company, Inc. (California)
American Jet Engine Co. (New York)	Linsmeyer Machine, Inc. (Indiana)
Brown Helicopter, Inc. (Florida)	Performance Enterprises (Texas)
C&C Alloys Corp. (Oklahoma)	R & D Aero Engine Co. (Texas)
Charlotte Aircraft Corp. (North Carolina)	Rilpa Enterprises Ltd. (Connecticut)
Chrisbary Aircraft Corp. (California)	Service and Sales, Inc. (Arizona)
Coast Helicopter and Air Craft (Texas)	Sky Control, Inc. (California)
Columbia Helicopters, Inc. (Oregon)	Transupport, Inc. (New Hampshire)

To determine the nature and extent of private sector marketing and selling of surplus aircraft parts, we visited Delta Airlines, Atlanta, Georgia. We also interviewed officials from United Airlines, San Francisco, California; Trans World Airlines, Kansas City, Missouri; and 57th Aerospace Group, Prior Creek, Oklahoma. To obtain information on private sector policies for scrapping surplus aircraft parts, we contacted aircraft part manufacturers—Pratt & Whitney, Meriden, Connecticut; and McDonnell Douglas, Tulsa, Oklahoma. We chose these companies because they were identified by two aviation trade associations and one aviation industry newsletter as being leaders in marketing and selling usable and scrap aircraft parts.

As part of our review, we interviewed officials from the Air Transport Association, Washington, D.C.; and Inventory Locator Services, Memphis, Tennessee; to obtain information on their automated marketing services. We also met with representatives from Aerospace Industries Association, Inc., Washington D.C.; and some of their members, including Bell Helicopter, Fort Worth, Texas; General Electric, Cincinnati, Ohio; General Motors-Allison Gas Turbine Division, Indianapolis, Indiana; Lockheed, Marietta, Georgia; Lucas Aerospace, Stamford, Connecticut; and United Technologies Corporation, Washington, D.C; to discuss how DOD surplus parts can best enter the civil aviation market.

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**Appendix I**  
**Scope and Methodology**

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We conducted our review from January 1993 through December 1993 in accordance with generally accepted government auditing standards.

# Comments From the Department of Defense



ACQUISITION AND  
TECHNOLOGY

(L/MDM)

## OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON  
WASHINGTON DC 20301-3000

25 AUG 1994



Mr. Frank C. Conahan  
Assistant Comptroller General  
National Security and International  
Affairs Division  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "COMMERCIAL PRACTICES: Opportunities Exist to Enhance DOD's Sales of Surplus Aircraft Parts," dated July 11, 1994, (GAO Code 398145), OSD case 9733). The DoD generally concurs with the report.

As reported by the GAO, there are inherent differences in the disposal of surplus property between the DoD and the commercial sector. However, the DoD agrees that there are ways that the DoD can increase the sales of surplus aircraft parts. In fact, most of the GAO suggested methods for increasing proceeds from parts sales are being addressed by the Defense Reutilization and Marketing Service.

For example, lotting techniques and marketing strategies have been changed to open new markets, including original equipment manufacturers and airlines. Property to be sold is now given a prospective commercial market value and, if not sold at that price, is re-offered for sale or offered for sale to a wider market area. Also, a statement of work has been issued to commercial contractors for marketing aircraft parts. In addition, a test of a commercial computer networking service is underway to reach potential customers, and negotiations with potential consignment agents and auctioneers to broaden the customer base and maximize returns is also underway.

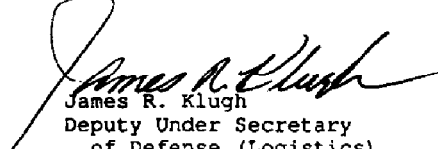


**Appendix II**  
**Comments From the Department of Defense**

2

The DoD detailed comments on the GAO recommendations are provided in the enclosure. The Department appreciates the opportunity to comment on the draft report.

Sincerely,



James R. Klugh  
Deputy Under Secretary  
of Defense (Logistics)

Enclosure



Appendix II  
Comments From the Department of Defense

GAO DRAFT REPORT--DATED JULY 11, 1994  
(GAO CODE 398145) OSD CASE 9733

"COMMERCIAL PRACTICES: OPPORTUNITIES EXIST TO  
ENHANCE DOD'S SALES OF SURPLUS AIRCRAFT PARTS"

DEPARTMENT OF DEFENSE COMMENTS ON  
THE GAO RECOMMENDATIONS

\* \* \* \* \*

- o **RECOMMENDATION 1:** The GAO recommended that the Secretary of Defense explore ways of providing greater financial incentives to enhance proceeds from the sale of usable surplus parts. For example, one alternative the GAO referenced would be to return a portion of the proceeds, generated from the sale of such parts, to disposal offices to help carry out the operation of disposal activities more effectively. The GAO commented that additional funds could be used to enhance the expertise of disposal staff and familiarize them with all aspects of the surplus aircraft parts market that commercial airlines have found to be successful. (p. 18/GAO Draft Report)

**DOD RESPONSE:** Concur. The Department continues to explore ways to increase proceeds from the sale of surplus property. As discussed in the DoD response to Recommendations 2 and 3, additional methods to improve sales have already contributed to a 72 percent increase in sales revenues through June 30, 1994.

The alternative of returning proceeds from the sales to disposal offices is not practical. As indicated by the GAO, the sales proceeds are deposited in the Defense Business Operating Fund. In addition, it should be recognized that most surplus aircraft parts are sold centrally by the National Sales Office, rather than by individual disposal offices.

- o **RECOMMENDATION 2:** The GAO recommended that the Director of the Defense Logistics Agency, in conjunction with the Military Services, conduct a pilot program to determine how (1) commercial-type aircraft parts and their civil applications can best be identified for DoD disposal staff and (2) parts that conform to an existing Federal Aviation Administration

ENCLOSURE

Now on p. 14.

Appendix II  
Comments From the Department of Defense

Now on p. 14.

certification or have potential to be certified can be identified for DoD disposal staff and relevant information forwarded with the part. The GAO explained that the Department could take a phased approach by initially testing the practices at a few disposal yards before determining their applicability to the entire DoD disposal system. (pp. 18-19/GAO Draft Report)

**DOD RESPONSE:** Concur. However, the Department is not currently able to identify parts with potential commercial application or for Federal Aviation Administration certification. The information needed to do so rests with the commercial sector and the Federal Aviation Administration. During FY 1995, a program to explore the feasibility of the GAO recommendation will be conducted by the Defense Reutilization and Marketing Service, as the sales agent for the DoD. The pilot program will include consideration of environmental, health, safety, and legal liability issues. Consideration will also be given to the potential costs associated with developing and maintaining the information and the impact on proceeds.

- o **RECOMMENDATION 3:** The GAO recommended that the Director of the Defense Logistics Agency conduct a program to test commercial marketing practices that could enhance sales of surplus aircraft parts. The GAO explained that among the practices that the Defense Logistics Agency should include in its test are:

- separating commercial-type parts into sales lots that do not mix unlike conditions and manufacturers;
- actively marketing those parts to a wide spectrum of potential customers; and
- providing the technical training necessary for staff so they will know the parts they are selling and the markets they are selling to.

The GAO noted that because it is possible that the DoD may incur additional costs in applying these practices, the program could also initially test the practices at a few disposal yards with the goal of identifying and selecting those that will yield the greatest benefits at the minimum cost. (p. 19/GAO Draft Report)

Now on p. 15.

**DOD RESPONSE:** Concur. As the GAO noted, a direct rate-of-return comparison between the DoD and the private sector is not possible. However, the DoD agrees that its sales rates have been low and can be improved. Among the actions being taken, the DoD has changed lotting techniques and marketing strategies to open new market opportunities, including direct buys by original equipment manufacturers and airlines. The Defense Reutilization and Marketing Service is testing or implementing commercial marketing practices to enhance proceeds from the sale of surplus aircraft parts. The Service has recently conducted a study on how the commercial sector handles aircraft parts. The study included visits to seven aircraft/engine original equipment manufacturers, three airlines, and six aircraft surplus brokers/dealers to obtain information on commercial practices.

The DoD disposal system is geared toward moving surplus property within established time frames and available resources. However, the emphasis on selling property fast has been changed. Currently, property to be sold is given a prospective commercial market value. If it is not sold at that price it is re-offered for sale in the same market area or offered for sale in wider markets. The Defense Reutilization and Marketing Service is in negotiations with potential consignment agents and auctioneers to broaden their customer base and maximize returns on the sale of aircraft parts. In addition, a statement of work has been issued to commercial contractors for the marketing of aircraft parts at several locations. The Defense Reutilization and Marketing Service is in the process of testing the use of a commercial computer networking service to reach potential aircraft parts customers.

- o **RECOMMENDATION 4:** The GAO recommended that the Director of the Defense Logistics Agency (1) secure from buyers a warranty that stipulates DoD parts sold as scrap will be used only as such and not resold as usable and (2) assess the cost effectiveness of mutilating scrap parts in-house, especially those most vulnerable to being reused in the civil aviation market. (p. 19/GAO Draft Report)

**DOD RESPONSE:** Concur. The Defense Reutilization and Marketing Service has now developed warranty language for scrap and other aircraft parts. That office is also assessing the cost-effectiveness of mutilating

scrap aircraft parts on a continuing basis. Results of that assessment are expected by the end of FY 1995.

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# Major Contributors to This Report

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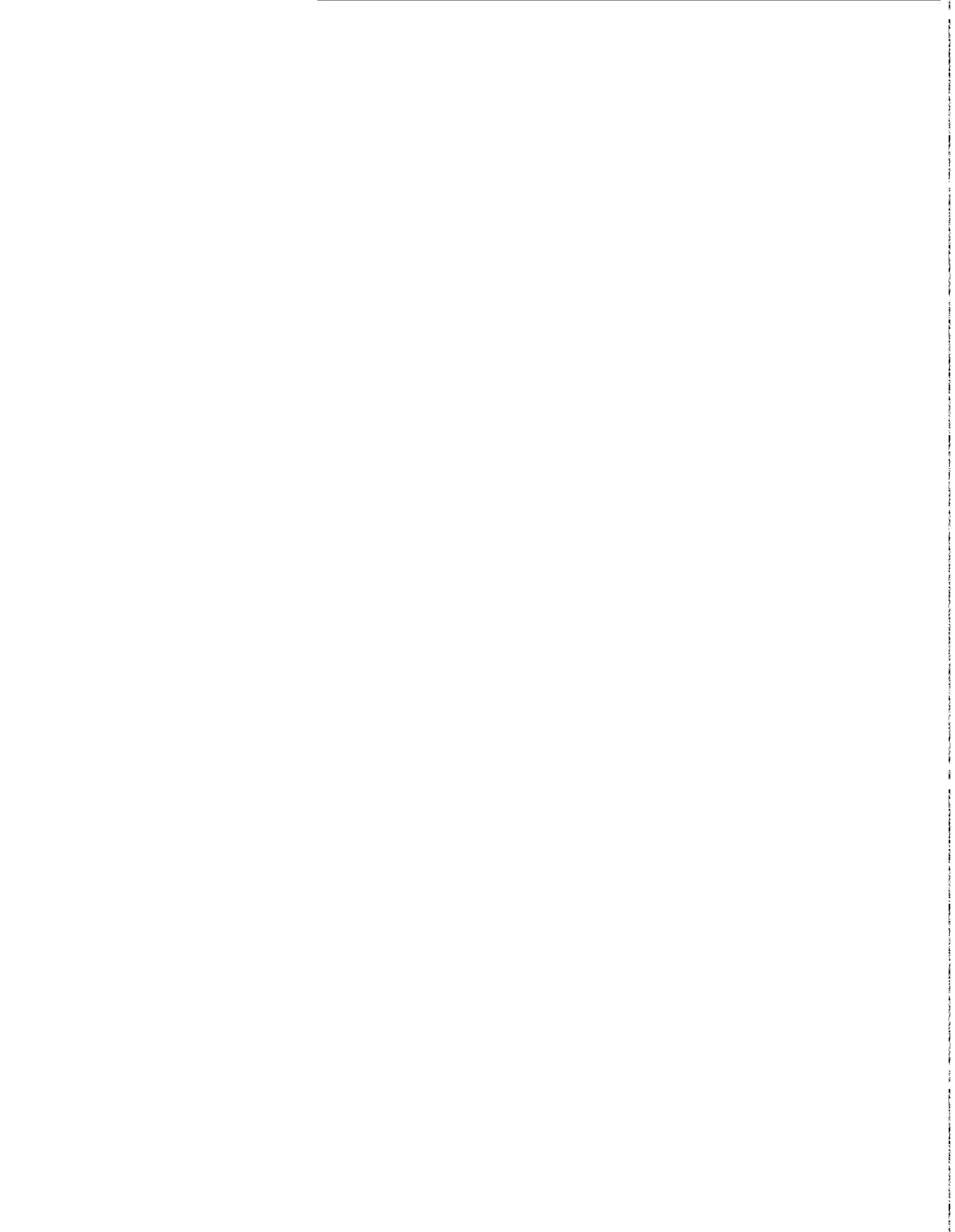
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