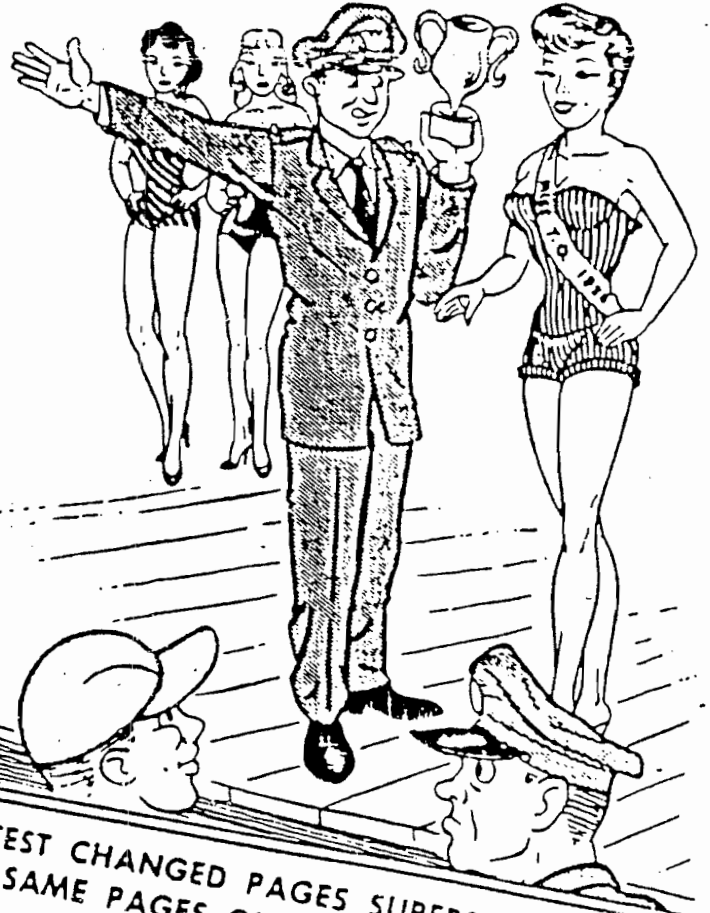


T.O. 00-5-3

Technical Orders

HOW TO GET THEM

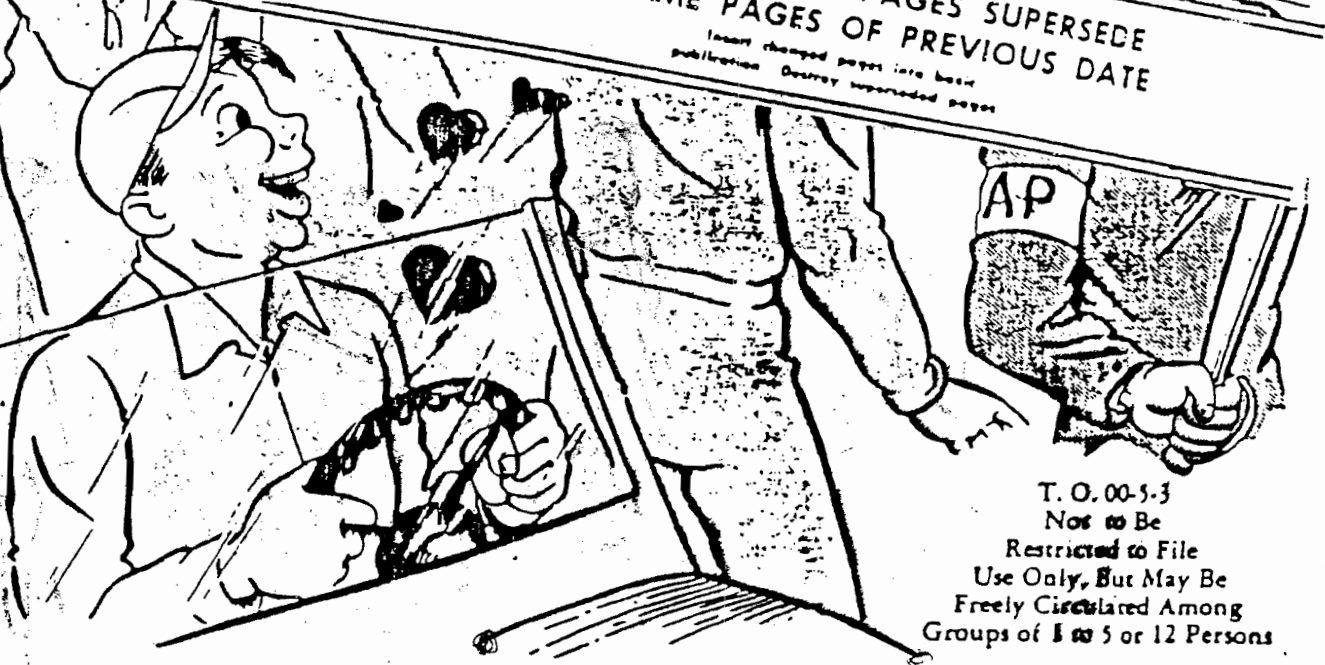


CHANGE

NOTICE

LATEST CHANGED PAGES SUPERSEDE
THE SAME PAGES OF PREVIOUS DATE

Insert changed pages into back
publication. Omit superceded pages.



T. O. 00-5-3
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PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

1 AUGUST 1956

T. O. 00-5-3

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TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 18 CONSISTING OF THE FOLLOWING:

Page No.	Issue
* Title	15 October 1958
* A	15 October 1958
1 thru 7	Original
* 8	15 October 1958
9	Original
* 10 thru 12	15 October 1958
13	Original
* 14	15 October 1958
15	Original
16 Blank	Original

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USAF

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For listing of available material and details of distribution: see Naval Aeronautics Publications Index NavAer 00-500.

TECHNICAL ORDERS



You probably know a few rugged characters who like to do everything the hard way. The kind of guys who crack hickory nuts with their bicuspid, drive railroad spikes with a tack hammer, and work jigsaw puzzles with the picture face-down. We all admire their bulldog grit, but sometimes we have a doubt or two about their approach to a job.

Well, even these hardheaded Joes might hesitate a second or two before trying to disassemble and reassemble one of the Air Force's new Electromagnetic Bifocal Widgets, Mark IV, Model 2. But after they get over the first shock, they set their teeth and charge right in. After all, looking at the instruction book would be quite a bother, and they figure it might be nice to have some wheels and cogs and springs left over in case they need spares later.

With luck, it may take the manufacturer's technical representative only a month or so to get the Widget rolling again. And shucks, fellers, that's what he's paid for, isn't it?



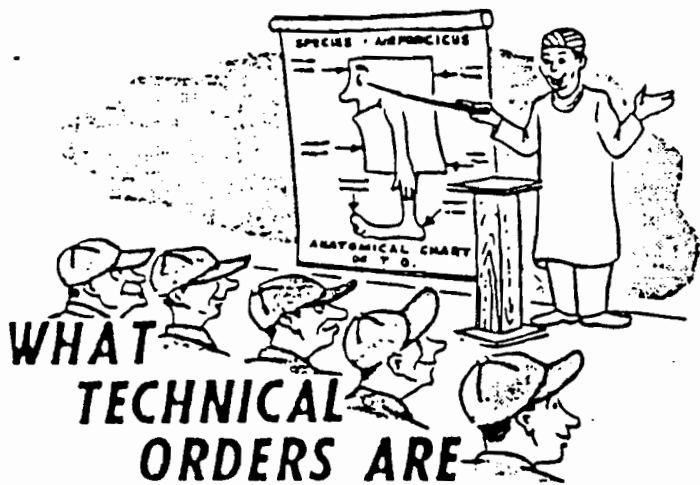


Now, ever since some of our brighter ancestors invented the ABC's, water coolers, paper clips, and movable type, there hasn't been any really good excuse for this sort of goof-up. Reading a few instructions on what to do and how to do it can—let's face it—save time, money, and wear and tear on the old nervous system. Besides, it just plain gets the job done better.

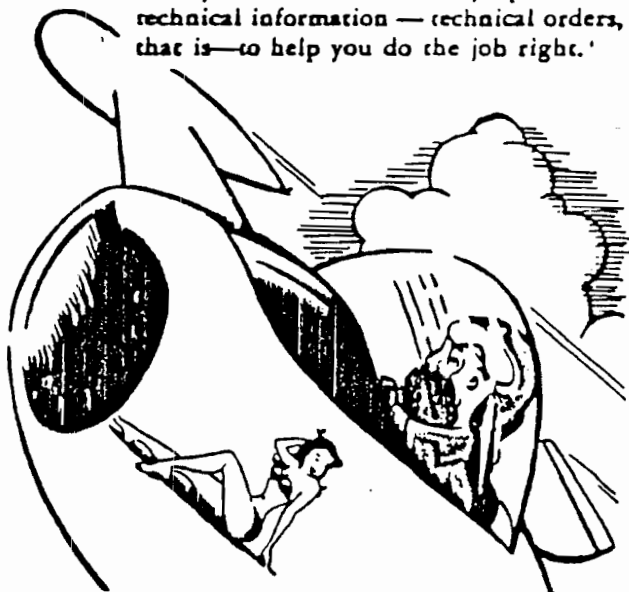
WHY TECHNICAL ORDERS ARE NECESSARY TO THE AIR FORCE



The advertising boys up on Madison Avenue like to call this a jet-propelled age, and Air Force-wide, they're absolutely right. We have to keep a lot of red-hot planes flying, and regardless of whether you call them blowtorches or meatgrinders, they need a bit of fixing now and then. Keeping all of these many kinds of aircraft (and their related equipment, which grows trickier and trickier) in topnotch shape is not an easy chore, but it's what you might call a worthy project. People can get killed, you know, and besides that, all this gear costs money. That's why the Air Force (1) spends all the time and trouble and money it takes to reach you plenty of basic know-how, and (2) spends a little more time and trouble and money to furnish you with the necessary specialized technical information — technical orders, that is—to help you do the job right.'



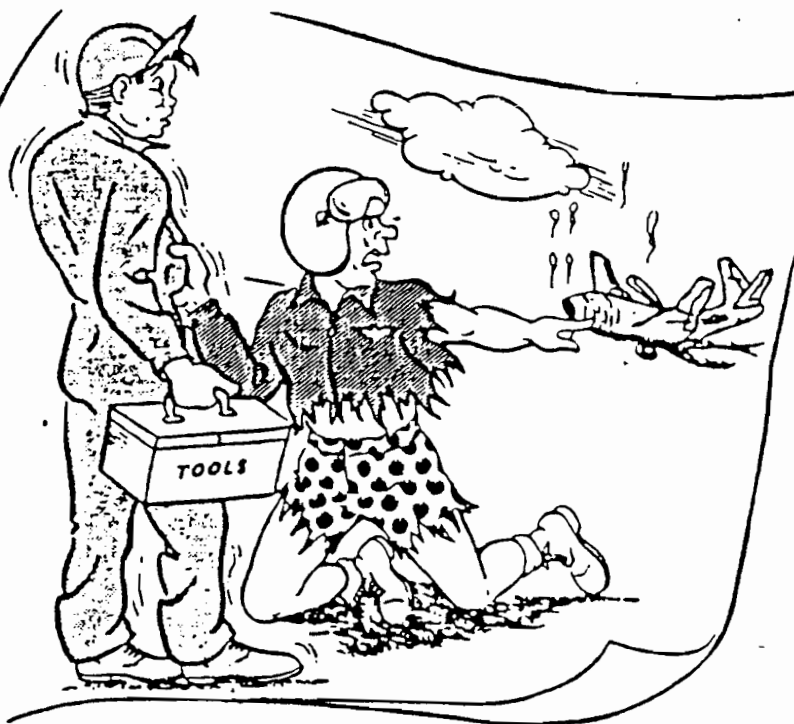
These days you can find how-to-do-it books all over the landscape, but the Air Force has its own special brand—private label stuff. They are officially known as Technical Orders (familiarily known as T.O.'s), and they give you all the latest scoop on how to operate and maintain Air Force equipment. You are provided with these publications through the Air Force Technical Order Publication Distribution System, which we'll tell you more about later, and the Air Materiel Command rides herd.



WHEN TECHNICAL ORDERS ARE NEEDED

When you have a job to do—maybe repairing some equipment or modifying a part of an aircraft—it's a safe bet that there is a technical order covering the subject like the dew does Dixie. There are technical orders giving specific, complete, and accurate dope on almost every subject from repairing a dishwasher to operating those new planes that just came into the squadron night before last.

Maybe you've done the same job before. Probably, since you are on the side of truth and justice, you have even read the T.O. before. Well, don't let that stop you—read it again. The wheels of progress may have taken a couple more turns in the meantime. Maybe there have been some revisions or supplements to the T.O. that change procedures or techniques—bring yourself up to date. As some anonymous Air Force philosopher once remarked, coining an axiom, "Follow religiously the latest technical order in maintaining and operating equipment and you will never get into trouble." While there are, no doubt, cynics who can think of other ways, we can all nevertheless agree that he stated a profound truth.



WHERE TO FIND TECHNICAL ORDERS

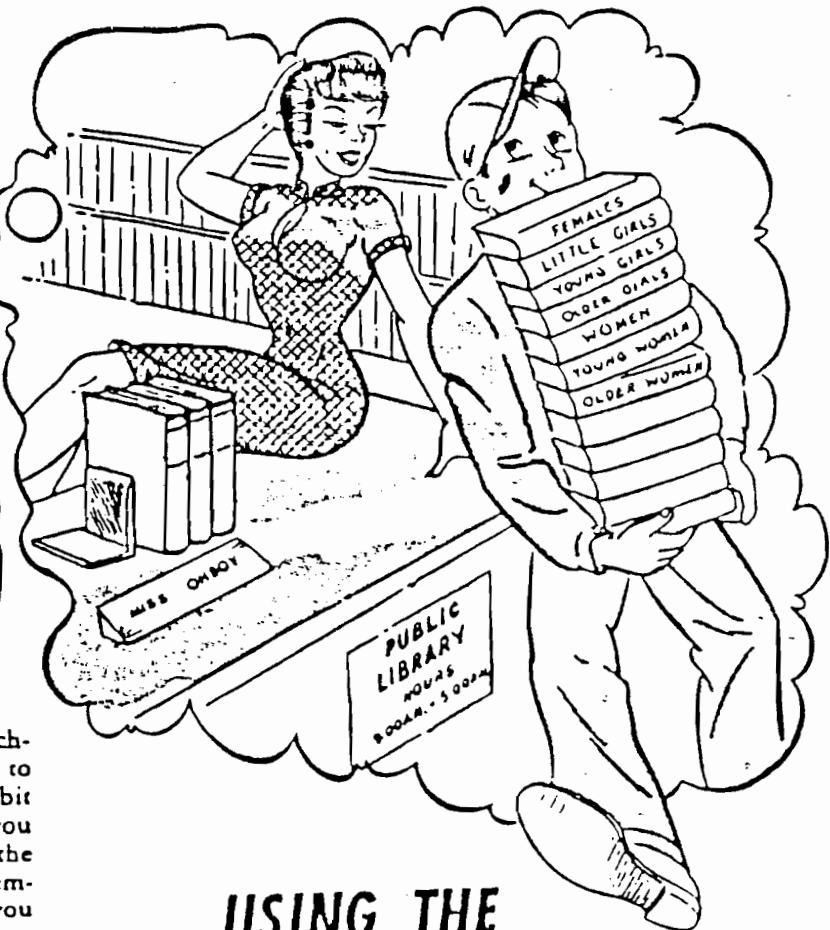


Most flora and fauna have a native habitat, and that goes for technical orders, too. They are usually kept in T.O. files, and there is at least one such file available to every Air Force organization. If you work on a flight line or in a shop, there is undoubtedly a file handy that contains working copies of T.O.'s that you can take out and use right on the job. Other T.O.'s that are used mainly for reference are maintained at squadron and group level. If you have any trouble tracking them down, ask your supervisor to help you locate the T.O.'s you need. Reference files at squadron and group level, and those on up to the office that furnishes copies to all files on your base, should make their T.O.'s available to you for reference purposes. Your supervisor should know the location of reference files and know the general T.O. coverage of each file.



THE TECHNICAL ORDER FILE

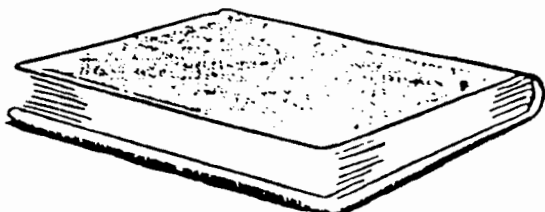
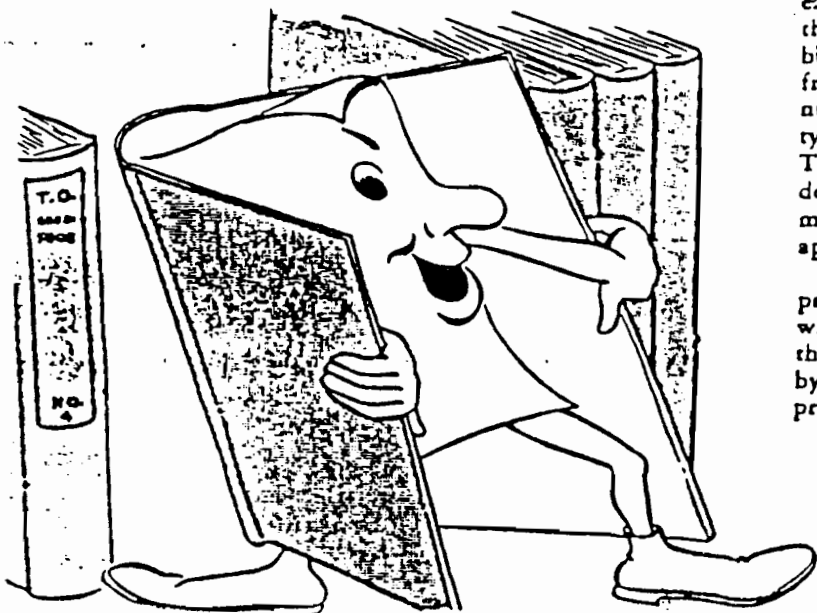
If you will think of your organization's technical order file as being a sort of first cousin to a public library, it might help you avoid a bit of confusion. Even if the file is quite large, you shouldn't have too much trouble locating the T.O. you want. The files are organized systematically, with related subjects together. If you are in a fairly specialized outfit, the files may contain only those T.O.'s that are needed on the job. In other cases, according to the situation, there will be not only the normal reference files, but also Control Tower, Work Copy, Aircraft, Vehicle and Boat files.



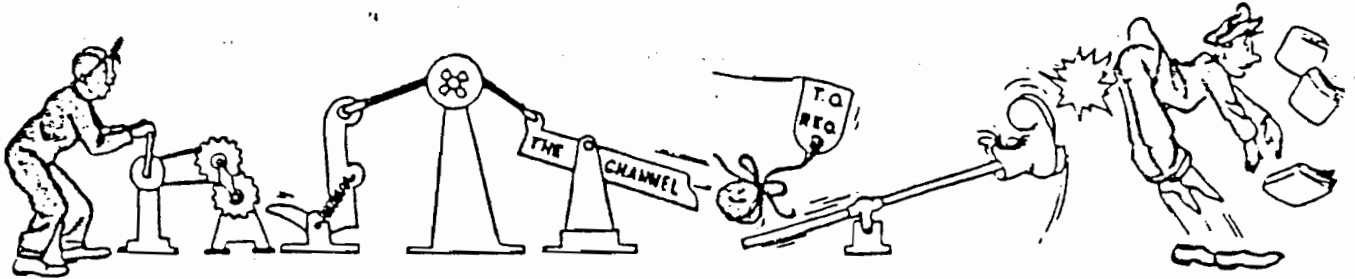
USING THE TECHNICAL ORDER FILE

Technical orders are kept in binders and are filed in numerical sequence—if you know the T.O. number, you can find the right binder easily, since the numbers appear on the back of the binders. If you don't know the T.O. number, but do know the equipment, you can look it up from one of the two T.O. indexes, alphabetical or numerical. There is a numerical index for each type of equipment and a basic numerical index, T.O. 0-1-01, which lists all the other T.O. indexes by number and category. There are a few more index type publications that have special application, which will be mentioned later on.

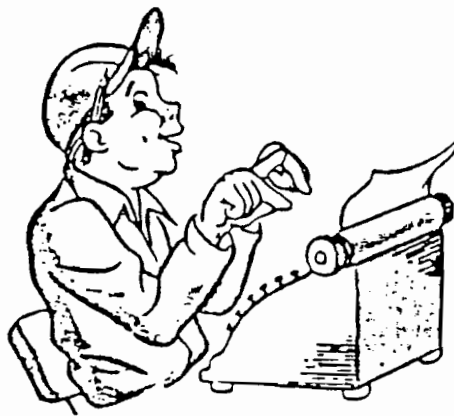
Classified T.O.'s are kept in safes, and the usual procedure to get them is through your supervisor, who will go directly to the person in charge of the file. Of course, any arrangement can be made by your outfit, and it is up to you to know the procedure.



STEPS IN PROCESSING TECHNICAL ORDERS



DATA IS COLLECTED AND FROM IT



T.O.'S ON EVERYTHING FROM SOUP TO NUTS



EDITED

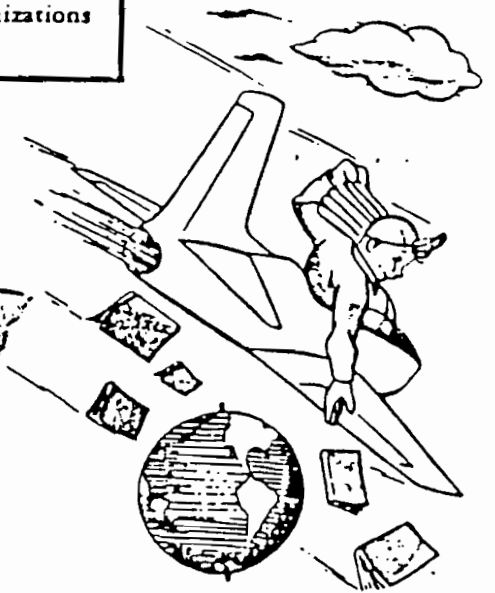
This business of processing technical orders is a right big deal, with a lot of duties and responsibilities involved. Technical data is collected; then technical orders on thousands of items of equipment, covering all phases of operations, are written, edited, illustrated and printed, and distributed to USAF organizations all over the world.



ILLUSTRATED

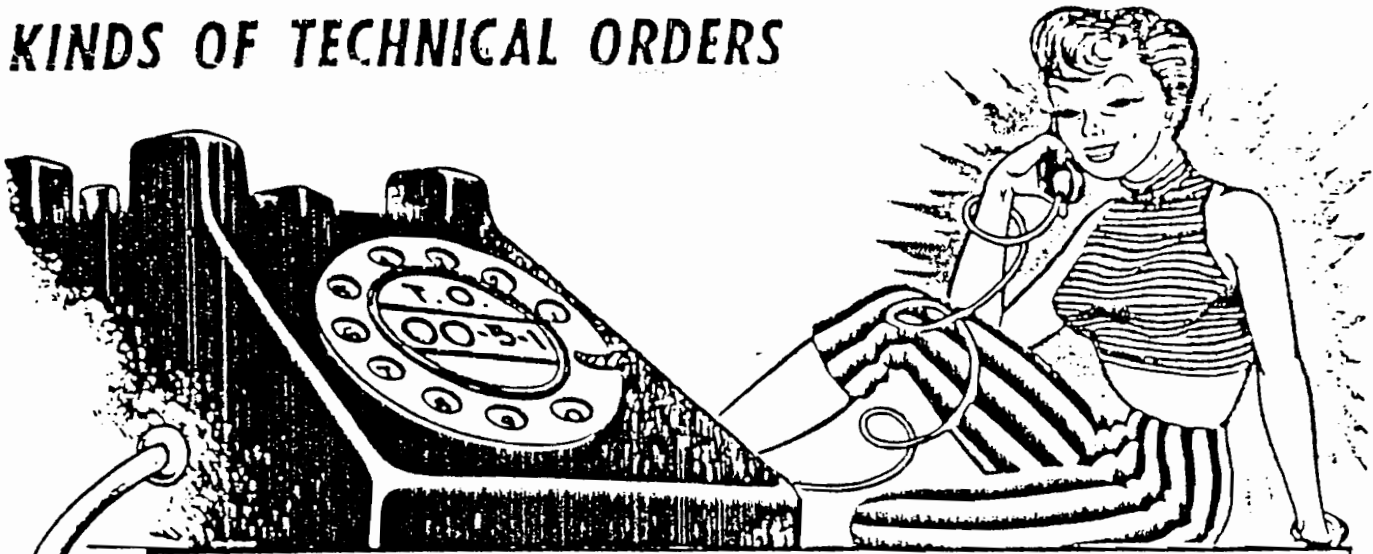


PRINTED



THEN DISTRIBUTED WORLD WIDE

KINDS OF TECHNICAL ORDERS



There is a T.O. called "Technical Order Publications System"; the number is T.O. 00-5-1. That little gem will dazzle you. It is so chock-full of information that once you read the first chapter, you are no longer a recruit. Briefly, here are some of the high spots on the different types of technical order publications.

Time Compliance Technical Orders (legal name), alias modification T.O., alias those * ! ? ≠ things that work orders are made up from. Use any name you choose—these T.O.'s are a very necessary part of the T.O. system. There are four types of Time Compliance T.O.'s: Immediate Action, Urgent Action, Routine Action, and Record Type.

The type of Time Compliance T.O. issued depends on how urgent the modification is. In many cases, the need is to protect your life or the lives of your friends. In other cases, to prevent destruction, damage or reduced efficiency of equipment. Just think it over for a few minutes—it takes a lot of engineering skill and technical know-how to make up a good modification. When the panic button is pushed and an Immediate Action or Urgent Action Time Compliance T.O. comes out of the mill, there are good reasons for the action.

Handbooks of Instructions. This group tells you how to operate, inspect, maintain, and overhaul aircraft and equipment. Here is where we lose track of what you may need because we can't guess what your specialty is. One thing you can be sure of: there is a list of about 20 different types of instruction handbooks and we will lay odds that you're covered. Wire communication T.O.'s, known as Interim T.O.'s, are formalized, printed, and distributed within 10 days.

Illustrated Parts Breakdowns include part numbers, nomenclature, illustrate assemblies and identify attaching parts. This type of publication is used for identifying, requisitioning and determining assembly and disassembly relationship.

Index Type Publications. When we say "Index Type", it is a pretty broad statement since we have a number of sub-groups. The most important of all are the Numerical Indexes—T.O. 0-1-1, T.O. 0-1-2, etc. These are the only official sources of information on the status of a technical order. **Publications Requirement Tables**—your order blanks for new T.O.'s—are index type publications. Another type is "List of Applicable Publications" (LOAP), which lists publications that apply to given aircraft, guided missiles, training devices, or boats. LOAP's are published to familiarize you with T.O.'s that apply to the specific AF equipment that you are interested in. Finally, there are **Indexes of Drawings on Microfilm.** These indexes list drawings by number and alphabetically by nomenclature. If you need some dope on this subject, the best we can do here is refer you to T.O. 00-5-4.

Supplementary Type Publications. First of all, don't confuse this type of publication with T.O. supplements. Supplementary type publications are to help you carry out instructions in aircraft and equipment handbooks. In this group, you will find Flight Range Guides, Aircraft Inspection Work Cards, Sequence Charts and Work Sheets, Lubrication Charts, and Bombing Tables. We are going to skip the details here and ask you to discuss the ones you are interested in with your supervisor.



DISTRIBUTION SYSTEM HIGHLIGHTS

A few paragraphs back, we promised to tell you more about the Air Force Technical Order Publication Distribution System.

Technical orders are printed in book form and each has a separate identifying number. The first part of the number identifies the category of publication; for example, 1 is for aircraft, 2 for engines, etc. (See T.O. index 0-1-01 for a list of all categories.) The middle part or parts often indicate the specific item of equipment, and the last part identifies the type of book; for example, -1 for operation, -2 for service, etc. Read the preface to a numerical index—it explains the whole numbering pattern.

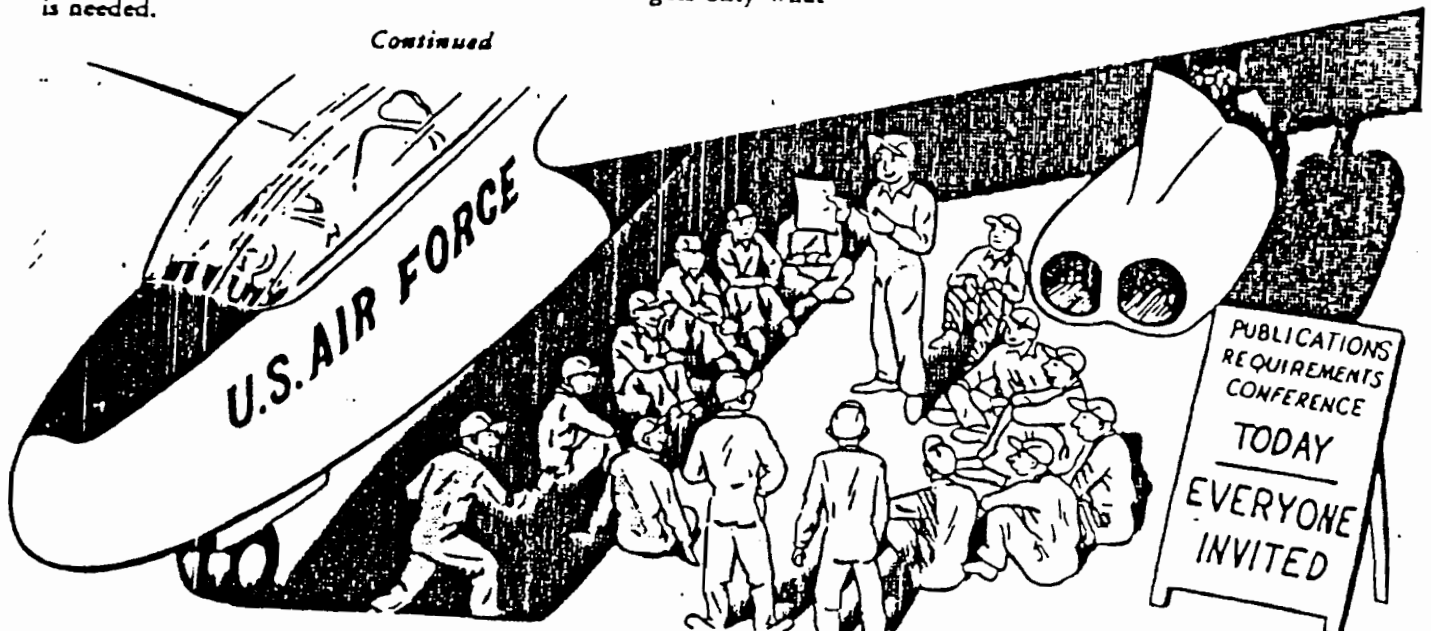
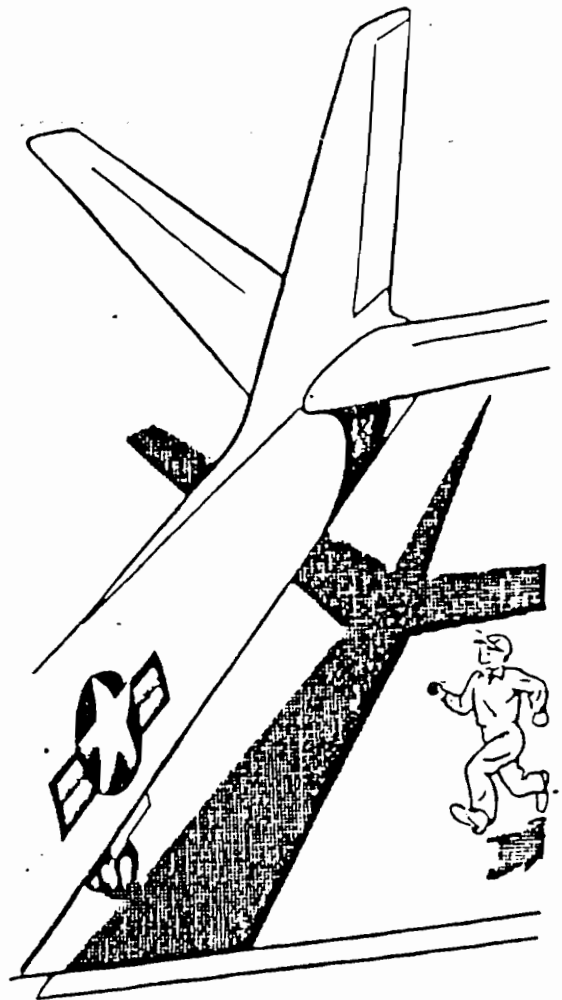
The "initial distribution phase" of this system works something like a mail order catalog. Your outfit is given a set of "order blanks" so they can help you get the T.O.'s you need. These order blanks are called "Publications Requirement Tables", and are designed to give your outfit a chance to order your T.O.'s while they are being processed for publication.

To get into this mail order business, your outfit must have an order blank to start with. The starting point is Publications Requirement Table, T.O. 0-3-01, which lists all the other Publications Requirement Tables by technical order category. The numerical sequence of the last dash number of Publications Requirement Tables is identical to the last dash number on numerical indexes. This means that for publications listed in the Numerical Index of Aircraft Instrument Publications, T.O. 0-1-5, there is an order blank counterpart, called Publications Requirement Table, Aircraft Instrument Publications, T.O. 0-3-5, and the same goes for other categories of T.O.'s.

The publications being processed are indicated by an asterisk (*) in the table. If you, through your supervisor and your outfit, get your order in before the effective date for machine tabulation of the "Publications Requirement Table", you will get what you order when the publication is printed—right off the press.

When your supervisor is given a table and asked to fill out his order, he should have a talk with you and the rest of his crew so that nothing will be overlooked—and his crew gets only what is needed.

Continued



As you probably know, supplements are issued to give you additional information or to change information in a basic T.O. What would be more reasonable, then, than to distribute supplements to the same people that have set up requirements for the basic T.O.? That is just what is done, and that is why supplements are not listed in a requirement table.

Time Compliance technical orders are distributed on the basis of requirements established for each item marked with an "S" in a requirement table. We have been given more knots on our head than are handed out in a Hollywood Class B Western Epic for not getting this across to you. So if you will, Mac, read this one real carefully. When you establish your requirements for a handbook, consider at the same time what you will need in the way of compliance T. O.'s. If you can't decide, take it up with your supervisor and let him decide. At this point, you have nothing to lose, but if you miss, it may mean a work stoppage while you order the T. O.'s you need. One nice thing about it, once you are on the mailing list for an "S" requirement, you will get all of the compliance T. O.'s that are printed for the particular "S" requirement.

So, at this point, you sit back and say, "That's fine, Mac, but once in a while we get a drifter in here that needs a little repair before it can move on, and our file is not set up to do the job, now what can we do?"

"What if I took one out to the ah, hangar, it was misplaced—the T. O. is lost and I'm lost—where do I get another copy?" BROTHER!!!. Anything can happen—and usually does.

Well, the wheels behind the order blank system have heard those questions and more—enough to make a list as long as a chow line. After a few starts they came up with a system that works like a charm—more order blanks!! This time the order blank is what is commonly known as "AFTO Form 97 Requisition."

At this point, it is up to you to tell your supervisor what you need, and he will know all about requisitioning a T. O. Just in case your supervisor is on leave, sick, etc., you may want to know how it is done.

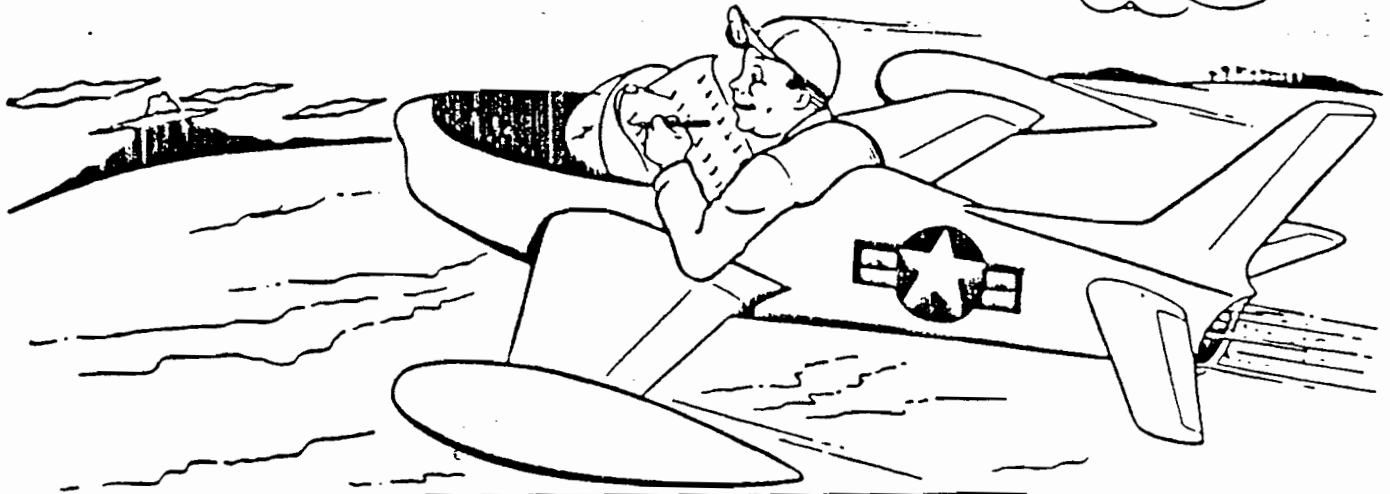
AFTO Forms 97 are not difficult to use, and telling you what they are used for is like telling you where to pick up your three-day pass—once you find the formula, you are not likely to forget.

When you have a "one-time" requirement for a technical order listed in the numerical index with a date, tell your outfit what you need and the technical order will be requisitioned directly from the publication storage point listed in the numerical index.

If a supplement shows up in a numerical index and you need a copy, you can submit an AFTO Form 97 for your copy by the specific supplement number and date. One more point: always submit an AFTO Form 97 for compliance T. O.'s by the specific T. O. number.



POINTS TO REMEMBER WHEN USING PUBLICATIONS REQUIREMENT TABLES



Teamwork between you, your supervisor, and your outfit is the key to the best possible service in taking part in the Technical Order Publication Distribution System. The first step in the team effort is proper use of the Publications Requirement Tables. The caption says "points to remember," so let's get at them.



Always submit your requirements within the time schedule shown on the title page of your requirement table. If your table is submitted too late, some of the publications you need will already have been printed and distributed.



Try to figure out your future requirements as accurately as you can, to avoid unnecessary revisions of Publications Requirement Tables.



When you don't need certain T. O.'s any more, revise your tables to stop future delivery of revisions and supplements or reissues for those publications.

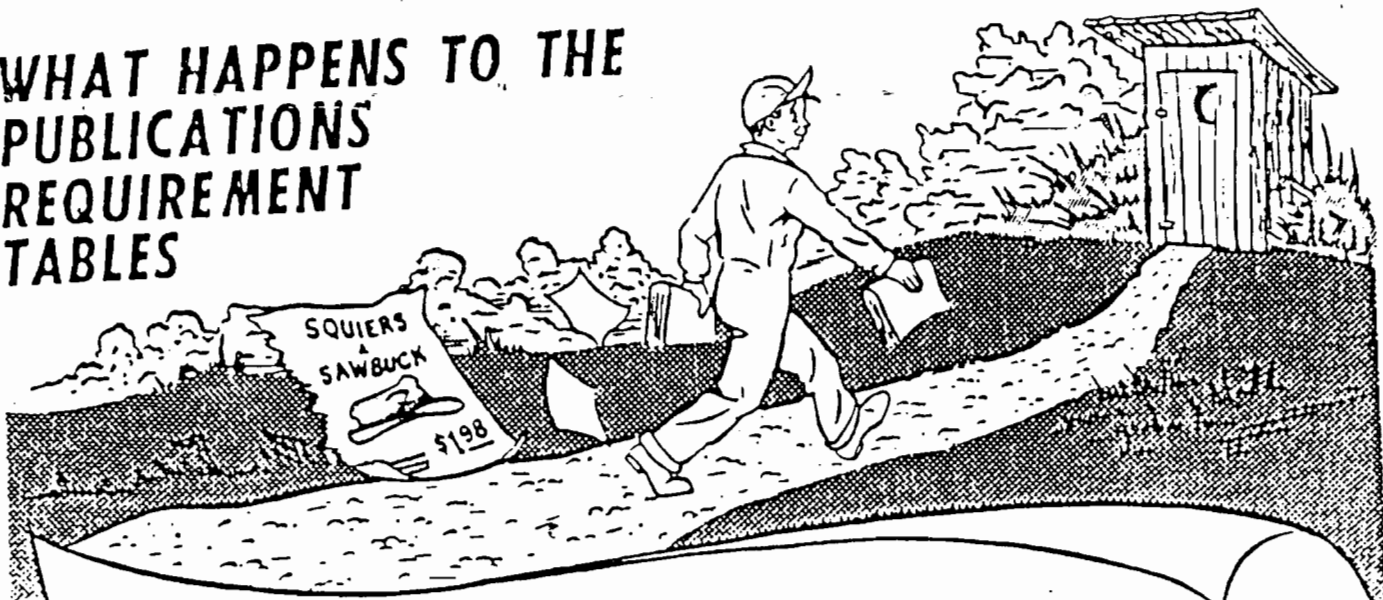


When you change the requirements for one or more items on a requirement table page, the requirement for other items on the page must also be listed.



When you change your requirements by revising a table, there is a mailing and machine processing time lapse before the change gets into the master file of requirements. During that time, you will continue to get your previous requirements.

WHAT HAPPENS TO THE PUBLICATIONS REQUIREMENT TABLES



The catalog down on the farm always ended up in the same place. The table your outfit prepares may have only one destination, but the information in the table has a long way to go before it does you any good. Just to give you an idea of how it operates, here is a short rundown.

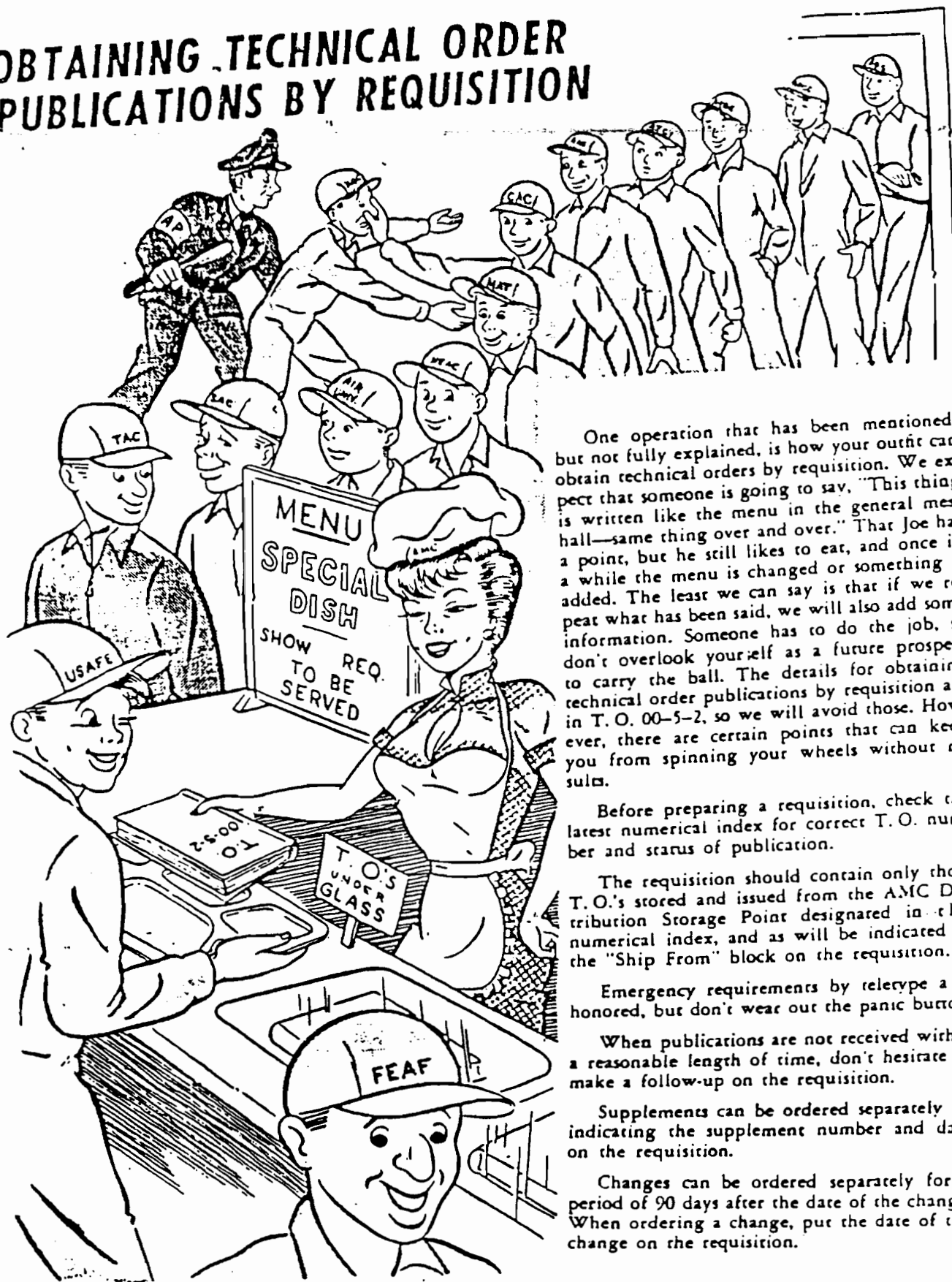
The table your outfit prepared is checked at the next higher echelon that is assigned this responsibility. From there, the table will go on its merry way—through channels, of course—up to the base "consolidation office." The consolidation office will then grind out a consolidated table by adding together the individual T.O. requirements in the tables from all the outfits that it services at the base. When the consolidated table is completed, it is sent (depending on the base) to the Materiel Officers, the Inspector General or Depot Inspector (you can bet it will be an officer with authority to ask some pointed questions) for approval and signature. From there, the table is mailed to Oklahoma Air Materiel Area, Tinker Air Force Base, Oklahoma.

At Oklahoma Air Materiel Area, the consolidated table is converted into electronic accounting machine cards. The cards amount to a consolidation of individual T.O. requirements on tables from all over the world. Information on the cards includes what organizations are to receive the publications scheduled for printing, and how many copies should be shipped to each organization. With this information, initial distribution of the newly printed technical order is accomplished. If statistics will impress you on the size of this deal, there are over 700,000 cards in the master file to record all T.O. requirements. The cards would make a neat deck about 4000 feet high, and there are not many times a misdeal is called and made to stick. When your outfit sends in an order, then changes the order by revising a table, it takes more than a simple manipulation to put that change in the right spot.

When a T.O. is to be printed, Oklahoma Air Materiel Area is contacted for shipping instructions. The electronic accounting machine cards that were prepared on the basis of your consolidated table are duplicated by machine, and the information is forwarded to the printing source. The printing source packages and ships the T.O. according to instructions on the card. When the shipment arrives at the office that consolidated the requirements, the T.O.'s are redistributed to individual files.

Sounds easy, doesn't it? But, by way of comparison, if the timing gears on an automobile engine are not synchronized, the engine will not run smoothly, if at all. The timing gears in the technical order system are just as important to smooth operation if you want the service that the system is designed to give.

OBTAINING TECHNICAL ORDER PUBLICATIONS BY REQUISITION



One operation that has been mentioned, but not fully explained, is how your outfit can obtain technical orders by requisition. We expect that someone is going to say, "This thing is written like the menu in the general mess hall—same thing over and over." That Joe has a point, but he still likes to eat, and once in a while the menu is changed or something is added. The least we can say is that if we repeat what has been said, we will also add some information. Someone has to do the job, so don't overlook yourself as a future prospect to carry the ball. The details for obtaining technical order publications by requisition are in T.O. 00-5-2, so we will avoid those. However, there are certain points that can keep you from spinning your wheels without results.

Before preparing a requisition, check the latest numerical index for correct T.O. number and status of publication.

The requisition should contain only those T.O.'s stored and issued from the AMC Distribution Storage Point designated in the numerical index, and as will be indicated in the "Ship From" block on the requisition.

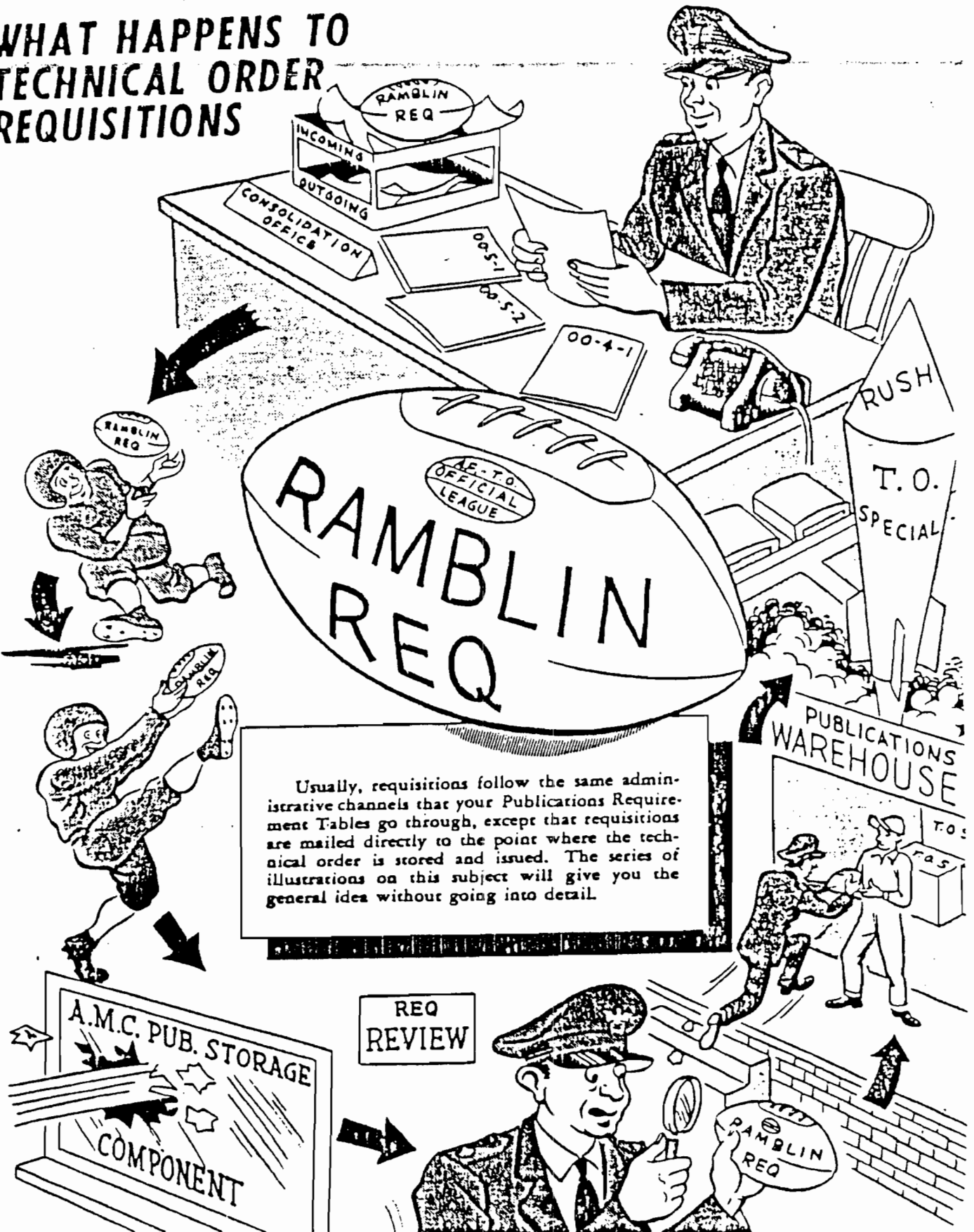
Emergency requirements by teletype are honored, but don't wear out the panic button.

When publications are not received within a reasonable length of time, don't hesitate to make a follow-up on the requisition.

Supplements can be ordered separately by indicating the supplement number and date on the requisition.

Changes can be ordered separately for a period of 90 days after the date of the change. When ordering a change, put the date of the change on the requisition.

WHAT HAPPENS TO TECHNICAL ORDER REQUISITIONS



Usually, requisitions follow the same administrative channels that your Publications Requirement Tables go through, except that requisitions are mailed directly to the point where the technical order is stored and issued. The series of illustrations on this subject will give you the general idea without going into detail.

WHAT TO DO WHEN TECHNICAL ORDER NEEDED IS NOT IN FILE OR LISTED IN NUMERICAL INDEXES



Sometimes you may have need for a publication that cannot be found in the T. O. files or identified in the numerical indexes; when this happens, the following procedures may help you:

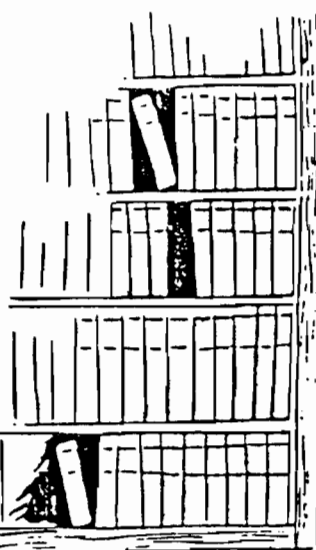
a. First, check the Publications Requirement Table on the category of the needed publication. These tables list publications under preparation that will normally be issued within a year. If the publication needed is listed in the table, it will eventually be delivered to your organization, provided requirements have been established. When the publication cannot be located, it is evidently not in the T. O. system. In this case, there may be a Department of the Army, Navy, or commercial publication available.

b. You can get information on Department of the Army and Navy publications that have not been integrated or identified in the T. O. indexes, through the AMC, Air Materiel Area, or AF depot that have maintenance prime responsibility on similar type of equipment. AMC prime maintenance activities can be found in T. O. 00-25-115.

c. Commercial publications are manufacturer's operational and maintenance instructions for standard commercial equipment not produced to specific Air Force specifications. When standard "off-the-shelf" items are procured by the Air Force, the manufacturer's publications are normally satisfactory and official T. O.'s are not procured. Commercial publications are a local purchase item (ref. T. O. 00-5-7).

PUBLICATIONS TO HELP YOU USE THE TECHNICAL ORDER FILE

- 0-2-1 Alphabetical Index
- 0-3-1 } Publications Requirement Tables
- THRU }
- 0-3-50 }
- 0-4-1 Cross Reference Table (showing former numbers and new numbers)
- 00-5-1 AF Technical Order System
- 00-5-2 Distribution and Storage of AF Technical Order System Publications
- 00-5-7 Commercial Technical Publications
- 0-1-01 } Numerical Indexes of Technical Publications
- THRU }
- 0-1-50 }



In Conclusion

A word of caution is due here—this publication is informal and is only the beginning of your knowledge of the T. O. system. Consider this T. O. a preview, or a bird's eye view, of the entire system to illustrate how it works. For a complete understanding of all phases of how, what, and where of the T. O. system, study the publications referenced in the preceding page.

