MANAGEMENT TRAINING COURSE CONFERENCE OUTLINE

NO. 16

DEVELOPING AND PRESENTING A NEW METHOD

OBJECTIVES

1. To study the use of the flow process chart in the development of a method improvement.
2. To learn the proper procedure for submitting a method improvement proposal.
3. To impress again the supervisor's responsibility for planning and carrying out method improvements.

AIDS AND MATERIALS

1. Worksheets 77--84.

TIME SCHEDULE

Minutes	Topics
25	I. Discussion of Assignment on Flow Diagram
50	II. The Flow Process Chart
20	III. Procedure for Submitting a Method Improvement Proposal
15	IV. Summary

I.	Discussion of Assignment (25 min.)	Collect the assignments on the flow diagram of the room inspection, and glance them over quickly. Ask a conferee who has worked out a good improvement plan to explain his proposal to the group. Sketching on the blackboard is probably necessary. After the proposal has been presented, have the rest of the conferees point out any way in which the inspection procedure may be further improved. The above example, though very simple and requiring no equipment or devices to demonstrate, illustrates well the usefulness of the flow diagram. Have the group mention other cases in which flow diagrams would be effective.
II.	The Flow Process Chart (50 min.) Worksheet 71 (review)	Have the group refer again to the second step of the Effective Method Improvement Procedure on Worksheet 71. The job breakdown sheet and the flow diagram have already been covered. Announce that the third method of breaking down a job in developing a method improvement makes use of the flow process chart.
	Worksheet 77	First, distribute Worksheet 77, "Symbols on a Flow Process Chart," and have the group discuss it. Be sure to point out that a symbol is used for each <u>important</u> step, not for each minute step, in a job.
	Worksheet 78	Next, distribute Worksheet 78, "A Flow Process Chart," and have the group study the case given along with the questions and the flow diagram on the reverse side of the worksheet. The example given here appears to be an oversimplification of the problem of making a method improvement. Explain, however, that this is an actual case study.
	Worksheet 79	It is not necessary to distribute Worksheet 79, which is a blank flow process chart, because the job breakdown sheet is more simple to write up and in most cases is more effective than the flow process chart. At any rate encourage the conferees to come to the training office to get these forms

		whenever they wish to draw up a flow process chart in developing a method improvement. Ask the conferees how the job breakdown sheet and the flow process chart differ in their use.
	Worksheet 80	Distribute Worksheet 80, "Multicolumn Process Chart," which is a variation of the flow process chart. Discuss the three cases given on this sheet.
	Worksheet 81	For a more detailed case study showing the use of a multicolumn process chart distribute Worksheet 81. The flow of paper work on a work order for a repair is clearly shown. Have the group discuss the usefulness of such a chart.
	Worksheet 82	Inform the group that Worksheet 82, which is a blank multicolumn process chart, is also available at the training office.
III.	Procedure for Submitting a Method Improvement Proposal (20 min.)	Have the group discuss the important problem of why most good ideas for improvements never get beyond the "talking" stage. Also discuss points to be considered in getting good ideas down on paper and in making plans for realizing them; also, in forwarding such plans to higher authority for approval. Refer to the film strip, "Stop, Look and Question," and review how the supervisor took care of this problem.
	Worksheet 83	Distribute Worksheet 83, "A Job Method Proposal Sheet," and encourage the supervisors to use this form in preparing their method improvement ideas for submission for approval.
	Assignment (95 min. to here)	Announce that within one month following the end of the current course all conferees are required to submit a method improvement plan to the training office. Explain that after necessary corrections are made these proposals will be forwarded to the OIC of each conferee.

IV.	Summary (15 min.)	To summarize the job method improvement phase of this management course have the group turn to Worksheet 84, "Open Your Mind."
	Worksheet 84	Have the group read over this sheet, and then use the remainder of this conference in a discussion of the importance of the supervisor's responsibility for planning and carrying out method improvement projects as part of the supervisor's creative duties.
	(110 min. to here)	

SYMBOLS ON A FLOW PROCESS CHART

OPERATION  When something is created, or changed, or added to, you use a large circle to show "Operation."	Drive Nail	Drill Hole	Type Letter
	An operation represents the main steps in a process. Usually transportation, storage, and inspections are more or less auxiliary to the processing activities. Operations involve such activities as forming, shaping, assembling, disassembling, servicing, etc.		
TRANSPORTATION  When something is moved from one place to another, you use a small circle to show "Transportation."	Move material by truck	Move material by hoist or elevator	Move material by carrying (Messenger)
	Transportation is the movement of the object being studied from one position or location to another. When materials are stored beside or within two or three feet of a bench or machine on which the operation is to be performed the movements used in obtaining the material preceding the operation and putting it down after operations are considered part of an operation.		
STORAGE OR DELAY  When something remains in one place waiting further action, you use a triangle to show "Storage."	Material in truck or on floor at bench waiting to be processed	Employee waiting for elevator	Papers waiting to be filed
	Storage or delay indicates an object coming to rest and not being worked upon. Storage is considered a permanent storage when a requisition must be obtained to move it to the next stage in the process.		
INSPECTION  When something is checked or verified, but not changed, you use a square to show "Inspection."	Examine material for quality or quantity	Read steam gauge on boiler	Examine printed form for information
	Inspection for quantity may consist of measuring, counting, or weighing. Inspection for quality may consist of testing a part to see if it will pass a predetermined standard or may take the form of grading.		

FLOW PROCESS CHART

JOB TITLE Unloading Boxes
SUPERVISOR Sergeant Canderal DEPARTMENT Supply Warehouse DATE 8 June 1952

PRESENT METHOD

IN FEET	OPERATION / TRANS- / PORTATION / STORAGE / INSPECTION	STEP NO.	Unloading Boxes Truck to elevator
	●○△□	1	Remove from truck
200	○○△□	2	Wheel to location 1st floor 1e
	●○△□	3	Place on pallet 2e
	○○▲□	4	On pallet 2eE
	●○△□	5	Lift truck pick up pallet 2eE
	●○△□	6	Place in trailer
	○○▲□	7	On trailer
	●○△□	8	Couple to train
100	○○△□	9	Pulled by tractor
	○○▲□	10	On elevator
	○○△□		10 Men 400 units $70 Total 17.5 per unit
	○○△□		5 Operations 2 Transportation 3 Storage
	○○△□		0 Inspection 10 Men

PROPOSED METHOD

IN FEET	OPERATION / TRANS- / PORTATION / STORAGE / INSPECTION	STEP NO.	Unloading Boxes Truck to elevator
	●○△□	1	Place on pallet on trailer
	●○△□	2	Couple to train
100	○○△□	3	Pulled by tractor
	○○▲□	4	On elevator
	○○△□		
	○○△□		
	○○△□		
	○○△□		
	○○△□		
	○○△□		4 Men 600 units $28 4.5 per unit
	○○△□		2 Operations 1 Transportation 1 Storage
	○○△□		0 Inspection 4 Men

Conference 16, Worksheet 78

QUESTIONS

1. Had any planning been given to this job the way it had been done?
2. It has been indicated that almost any job can be improved from 20 to 30% by the application of the principles and procedures in this course. Does this job support or refute that statement? Base your answer on figures.
3. Which point under which factor of motion economy (see Worksheet 70) was most effective in the improvement of this job?
4. What function of management does improving this job come under? What type of work? routine, regular, special or creative?

It is always good for a person to visualize the layout when he reviews a flow process chart. Using the listed symbols: and drawing out the layout or the example on the other side, the following chart is obtained:

(H) Hand wheel truck

[T] Trailer for supply pallets

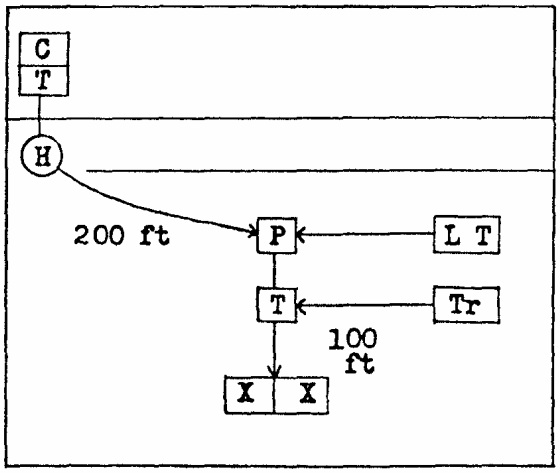
[P] Pallets, a rack to hold supplies so they can be lifted by a lift truck

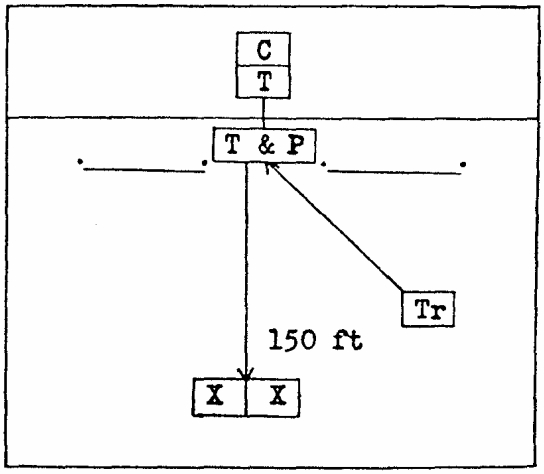
[Tr] Tractor to pull trailers for supplies

[C] / [T] Commercial truck delivering supplies to base

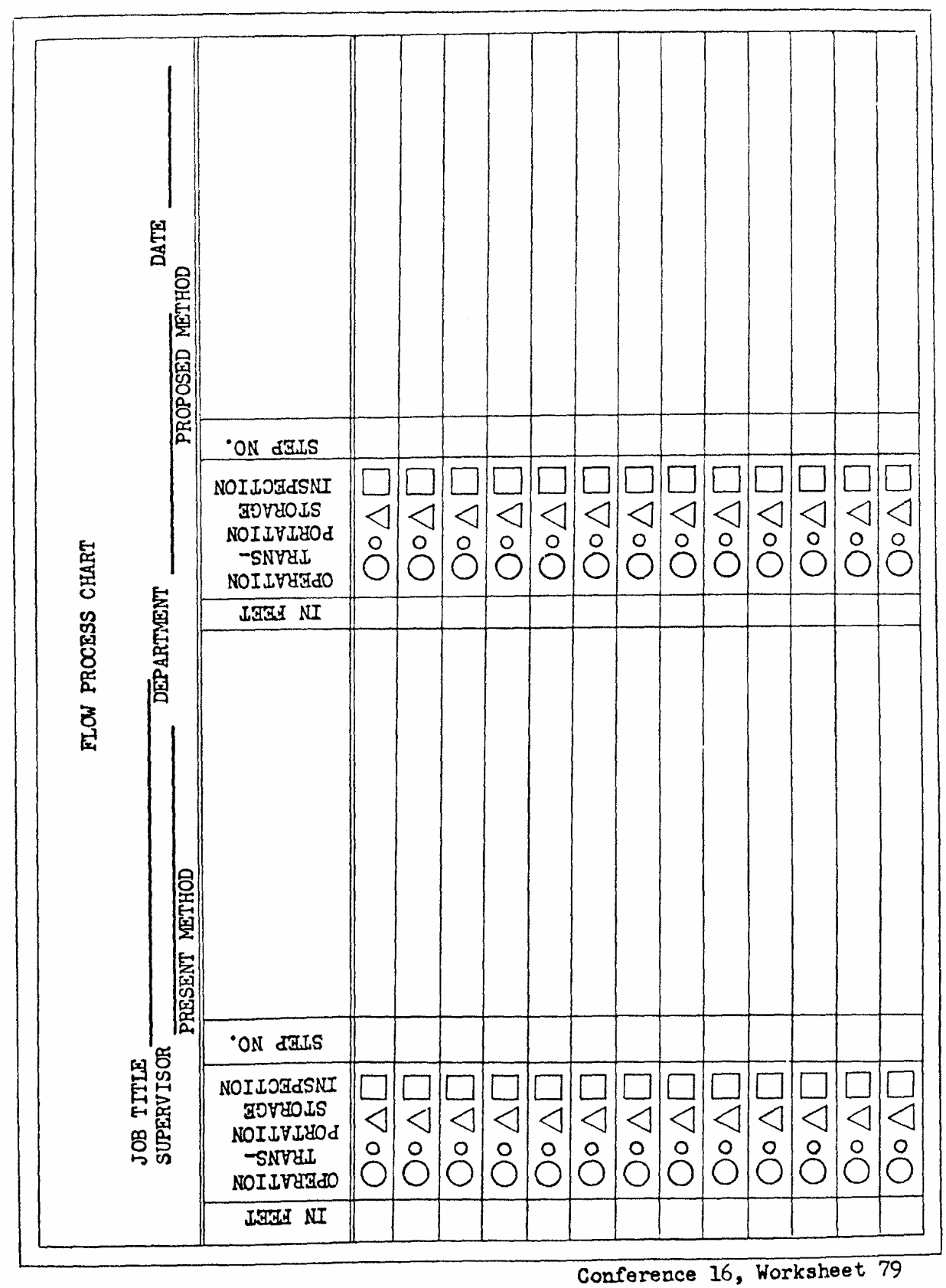
[X][X] Large service elevator

[L T] Lift truck





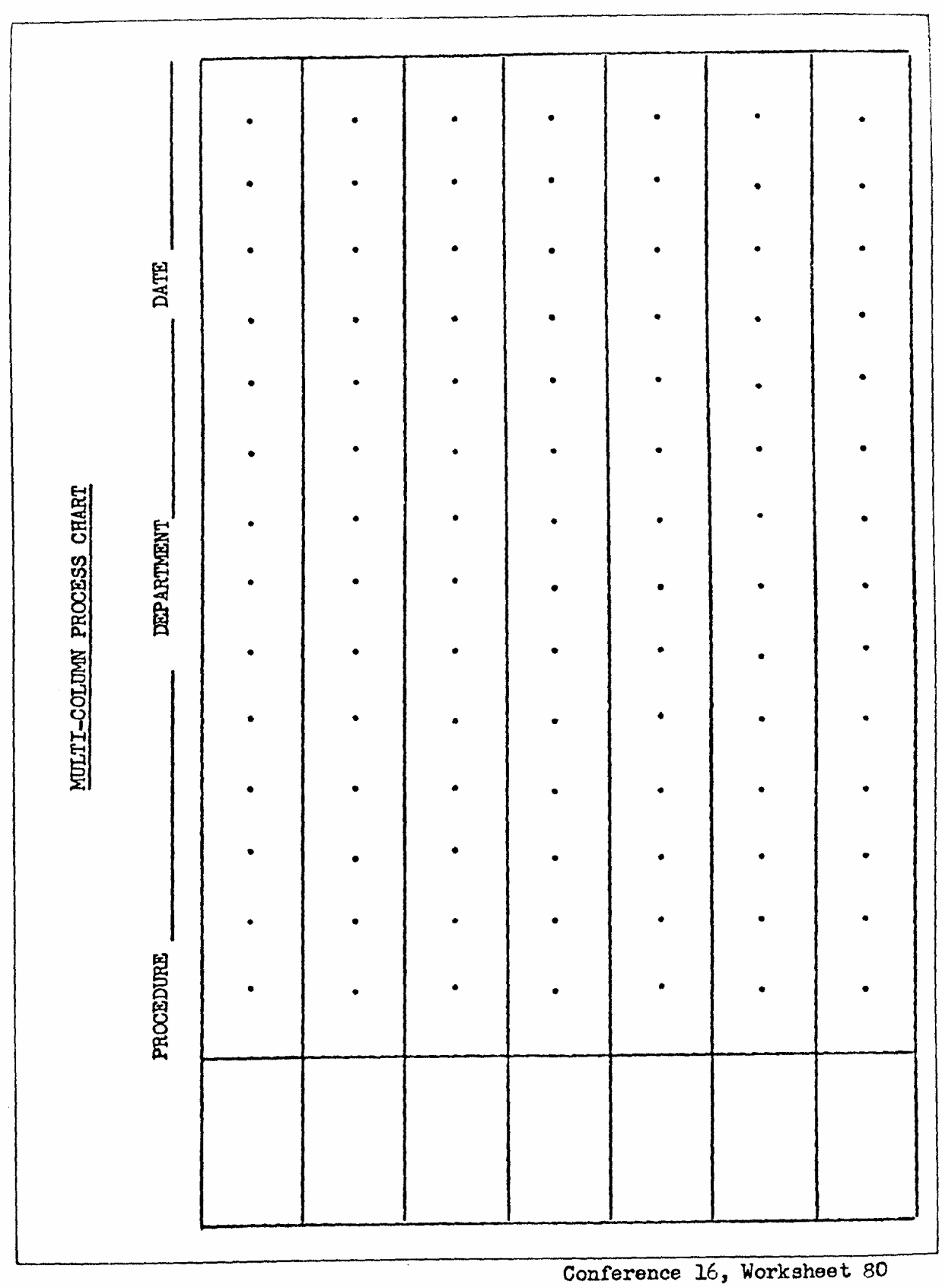
Conference 16, Worksheet 78 (cont'd.)



Conference 16, Worksheet 79

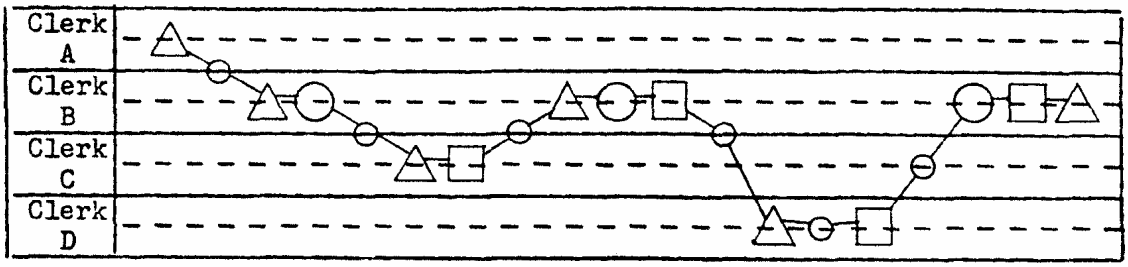
STEP NO.																
OPERATION TRANS- PORTATION STORAGE INSPECTION	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	
IN FEET																
STEP NO.																
OPERATION TRANS- PORTATION STORAGE INSPECTION	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	○ ○ ◁ □	
IN FEET																

Conference 16, Worksheet 79 (cont'd.)



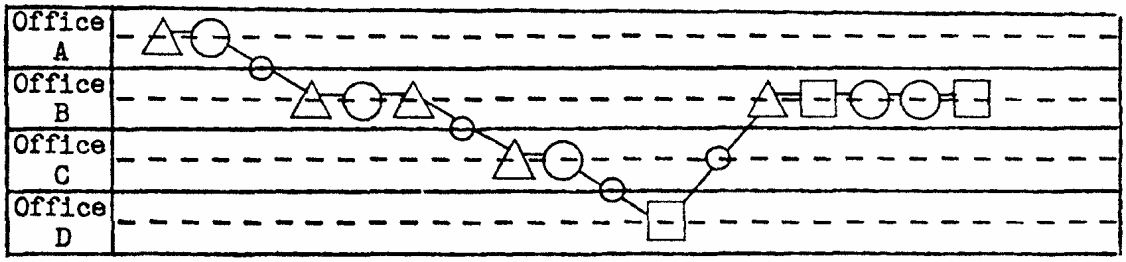
Conference 16, Worksheet 80

TROUBLE AREAS



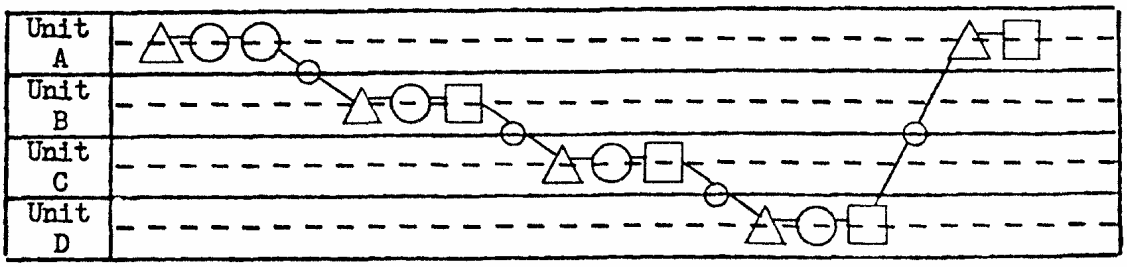
IS BACK TRACKING NECESSARY

The work here went back to Clerk B 4 times.
Could she do more at one time?



IS WORK DISTRIBUTED EVENLY

Is more work done in office B than necessary?
Do those in office A, C, D have to wait on office B?

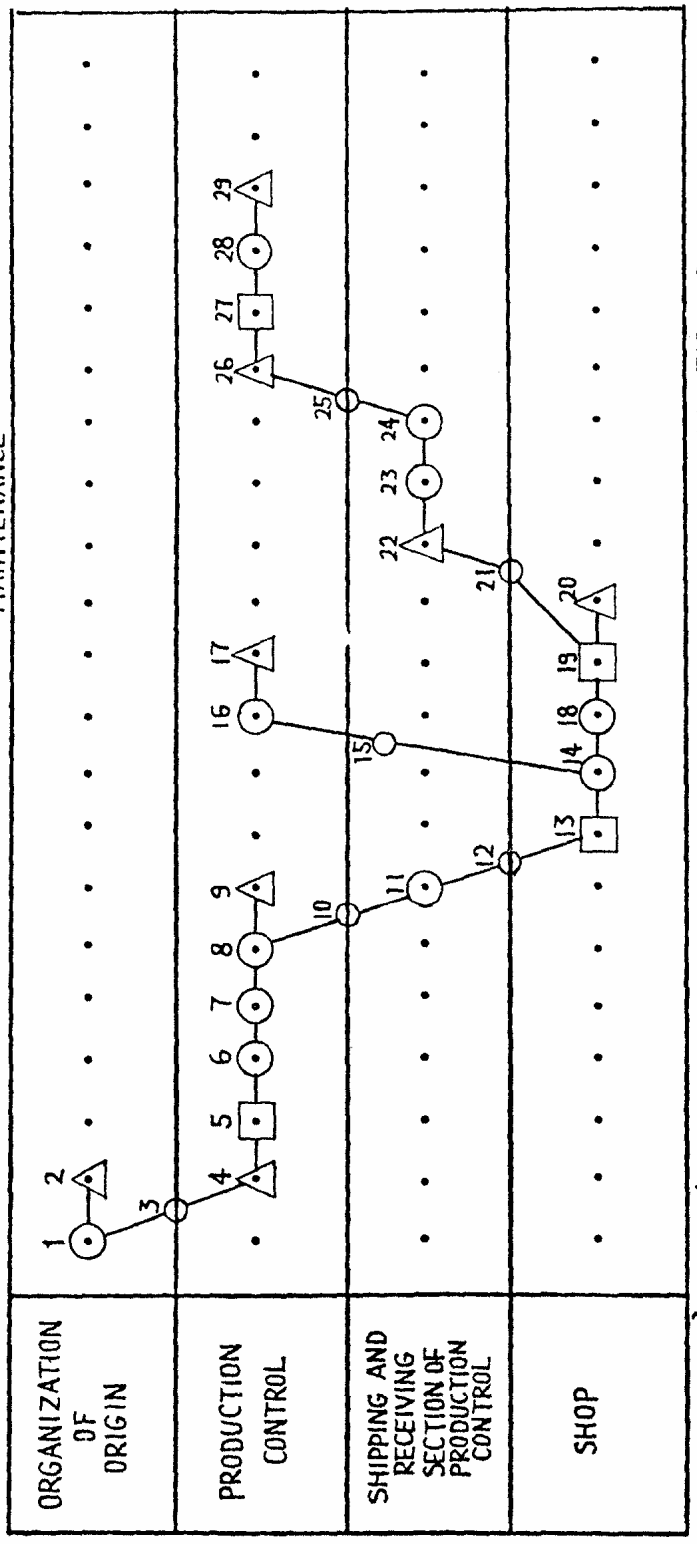


Is there duplication or Repetition?
Why are the same actions repeated in each unit?

Conference 16, Worksheet 81

MULTI-COLUMN FLOW PROCESS CHART

PROCEDURE: REPAIR WORK ORDER DEPARTMENT: AIRCRAFT MAINTENANCE DATE: 3 July 1952



1. Prepares 4 W. D. (Form W. D. 48)
2. Files Copy
3. 1/3 by Messenger
4. On Desk
5. Checks
6. Priority
7. Record in Ledger
8. Date & Time Stamp
9. Files Copy
10. ½ by Messenger
11. Secures Items by Phone
12. ½ with Items by Motor Truck
13. Inspects Property
14. Enters Date Standard
15. O/1 by Messenger
16. Record in Ledgers
17. Replaces Old File Copy (Shows Date Started)
18. Repair Property
19. Inspects Repair Tag Replaced by Ser. Tag
20. Files Copy
21. 1/0 with Property
22. On Desk
23. Contacts Organization
24. Issues Property
25. 1/0 by Messenger
26. On Desk
27. Checks on Completion
28. Record in Ledger
29. Replace Old File Copy

Conference 16, Worksheet 82

A JOB METHOD APPROVED

The Proposal Sheet

To _____ Date _____

From _____

Subject _____

Product _____

Operation _____ Dept. _____

The following is my proposal for improving the method for doing this work:

NOTE: Tell exactly HOW you believe this improvement can be accomplished. Use another sheet for additional information or sketches if necessary. Send in Present and Proposed Job Breakdown Sheets with this proposal.

Conference 16, Worksheet 83

OPEN YOUR MIND

Fuchida, foreman of the packing department, was seated at his desk thinking. Hara (foreman of the receiving department) came by and kidded him about his serious thinking.

"I'm trying to think up some new ideas for this department to see if we can keep even with the production schedule," Fuchida said showing a baffled expression.

"Don't blame you," Hara replied in a cheerful manner. "You know I've discovered lately that I get a lot of ideas by just talking with my men on the job. Talk to them. See if you don't get a lot of good ideas."

The next day Fuchida started talking with men in his department. He would ask the workers individually for any new ideas they might have on how to make the job easier, safer or more efficient.

Several ideas that Fuchida picked up he was able to put to work immediately. Several others which seemed to him to have questionable value, but which cost little and could do no harm, he also put into effect. The results were immediate and favorable and efficiency of operations increased. He continued talking to his workers whenever the opportunity came up. He obtained many good results.

As a by-product, Fuchida also discovered that he was getting to know his men a lot better and they seemed to like him more.

Your whole departmental performance level is almost sure to be raised measurably by your discussing shop problems with your workers and getting positive ideas.

But, what must you always be sure that you do whenever a person's proposal has turned out to be an effective improvement? Why?

JOB METHOD QUESTIONS

1. Have I freed my hand from holding?
2. Have I found the rhythm of my job?
3. Is my job set up for drop delivery?
4. Is my work laid out in my normal working area?
5. Do I work with balanced motions?
6. Have I cut the number of motions to a minimum?
7. Have I eliminated searching and selecting?
8. Are my tools and materials pre-positioned?
9. Have I eliminated positioning time?
10. Does my tooling have ejectors and quick-acting clamps?
11. Can I put my feet to useful work?
12. Can I produce two or more in one operation?
13. Have I eliminated unnecessary handling time by combining operations?
14. Have I broken long and complicated jobs into smaller elements?

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