

## 705-TX Meeting:

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~~1000~~

Scope: Solid State step-up of present 205 - for present 205 users who are overtaxed.

- maintain same philosophy of format, etc.

a lot of customer resistance in changing formats

- there was a lot of resistance in going to 205 III from 205 II. +

\$  $\frac{1}{4}$  to  $\frac{1}{2}$  Million investment in programming would be lost  
applied programming package also very important.

- Rapid translation of engineering designs to translators.

- Product Tested -

can extend logic - e.g. indexing "upward program capability."

I/O interrupt req. by IDP. + up  
HS disks } in 5 yr plan for 205-TX.  
SWIFT }

- 2.5  $\mu$ s Mem. cycle

+ other extensions to auxiliary memories.

Serial adder - address modification is just as fast.

Customers are willing to code new ~~old~~ application but not old programs. - reprogramming delays new applications.

705 III's just starting - plan 24 machines

705 II's still being made - will phase out in 6 mos.

7070's have cut in. 650 users who would have gone to 705  
new customers will start with 7070.

705-TX: very powerful - more expensive - mostly no new entries.

705-TX:  $(5 \times 705\text{II}) (3\frac{1}{3} \times 705\text{III espds})$   $\begin{array}{l} \text{I } 30K \text{ counter, memory} \\ \text{II } 40K \\ \text{III } 80K \end{array}$

~~can't go higher without a  
lot of areas,~~

Question: are there applications too big for 705's? - no study of this.

Internal checking: inherent in design - can't be removed.

705-TX may have too much checking?

Some customers are considering going from 735  $\rightarrow$  7070 to take  
advantage of deeper machine - most are not doing it.

→ Economics are very important.

There is a big vested interest in 705 family to perpetuate.

question: How important is large memory?

Disks may not make it as important -

→ 60 orders are on books for 705 II (will make 24?)

40% asked for 40K mem. some have asked for 20K.

attaching disk? hang on DSO handled like a tape drive  
with a "seek" op.

SEPD - has been working on a disk attachment for 705-TX  
AMC (Air Material Command - Oklahoma City). They are using a TRC.

Eventually minimize a system of tapes & high-speed disk files? &  
off-line peripheral - seems to be the future trend.  
will have 50-75 cpm cd reader on console (change cards, etc.)  
SPOOL philosophy differs from this. - on-line  
(I/O interrupt on 705-TX will make this possible too)

Big question is that 729 tapes can't be read off-line.

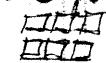
Drift current-switching, STRETCH circs, (not needed on disk card)  
Memory need 70 or 35 bits, need decimal addressing  
STRETCH planes are wrong. want  $80 \times 100$  planes  
 $(128 \times 128)$   
could use 7070 ( $100 \times 100$ ) - ? - would be different

3 modules

Each ~~say~~ longer ~~at~~ 1 module      say: 1 channel each - there is extra space  
available in disk control  
etc.

- have not considered parallel operation.

- parallel addr is harder - depends on schedule,  
will be block-for-block on tight module. - not if loose schedule  
loc indexing may be

- console - separate operators - ~~not~~ oriented for operator not C.E.  
- direct read-out displays, 2 displays  all op codes can be defined

- 705-TX is sketchy study program only - still no go-ahead.  
- expect to hear in week or two - concerning go-ahead  
- announcement in early '59 ? study group at 58 ~~still not ok'd.~~  
- model ~~Sept~~ 3<sup>rd</sup> quarter '59  
- delivery 2<sup>nd</sup> quarter '60

going to 1000 more than 1000 ~~at system~~

705 III

Rentals:		<u>Tx.</u>	<u>Tube</u>
Main Frame with 90K		20,000	16,500
" " " 80K		26,800	23,600
DSU		5,100	4,200
Console		1,400	1,100

standard no. of tapes:

H.S. 5 tapes @ 1100 5,500.  
L.S. 5 tapes @ 500 2,500.

~~100~~

~~~ \$47K for 2.750 a day~~

~~~ 150K~~

~~5.3 K offload,~~

705 III 7μs mem. cycle

705 TX 2.8μs mem cycle 3.3 times

{ slower, not square wave. hope for 2.2 on 2.4 circuit will work

Question: what about use of 705 for scientific uses?

at Houston meeting last month - many reports on PTRAN, etc.