Elastic wave propagation in embankment dams

M. D. Linton

ELASTIC WAVE PROPAGATION IN EMBANKMENT DAMS

APPENDIX B

Time-displacement graphs and stress distributions.

M.D. LINTON

May 1982.

CONTENTS

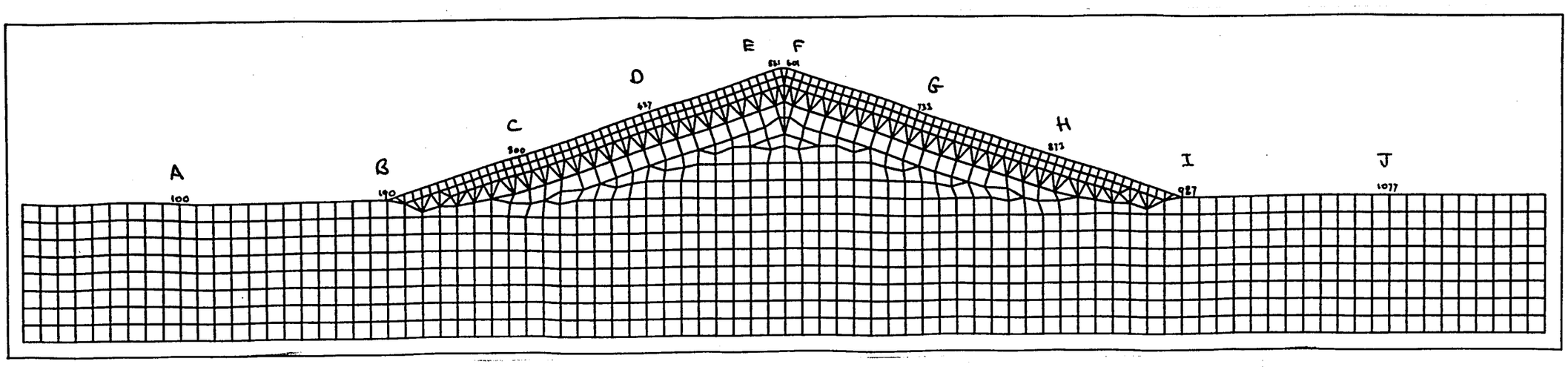


Fig. B.1. Finite element grid

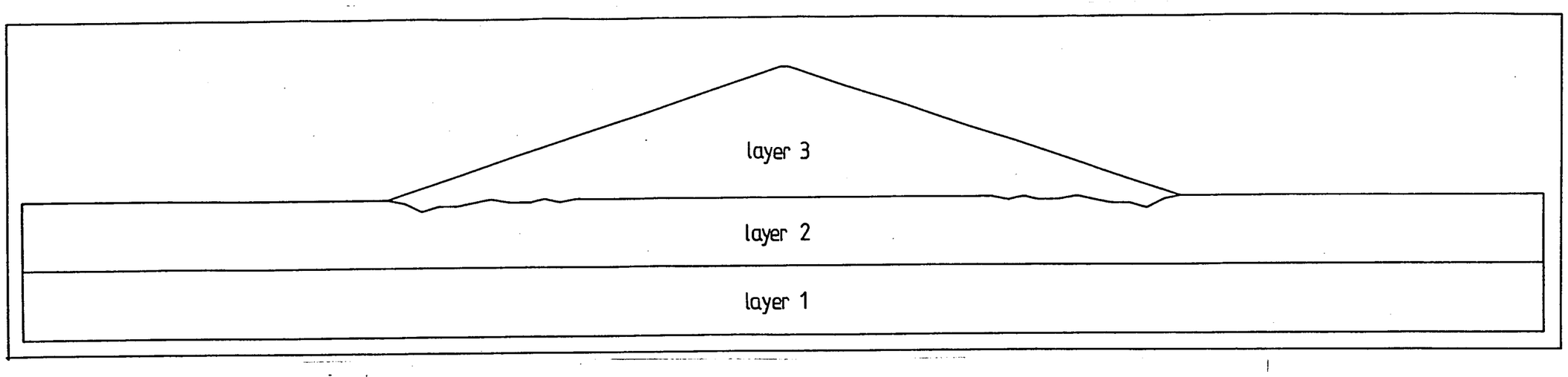


Fig. B.2. Layering of model D2

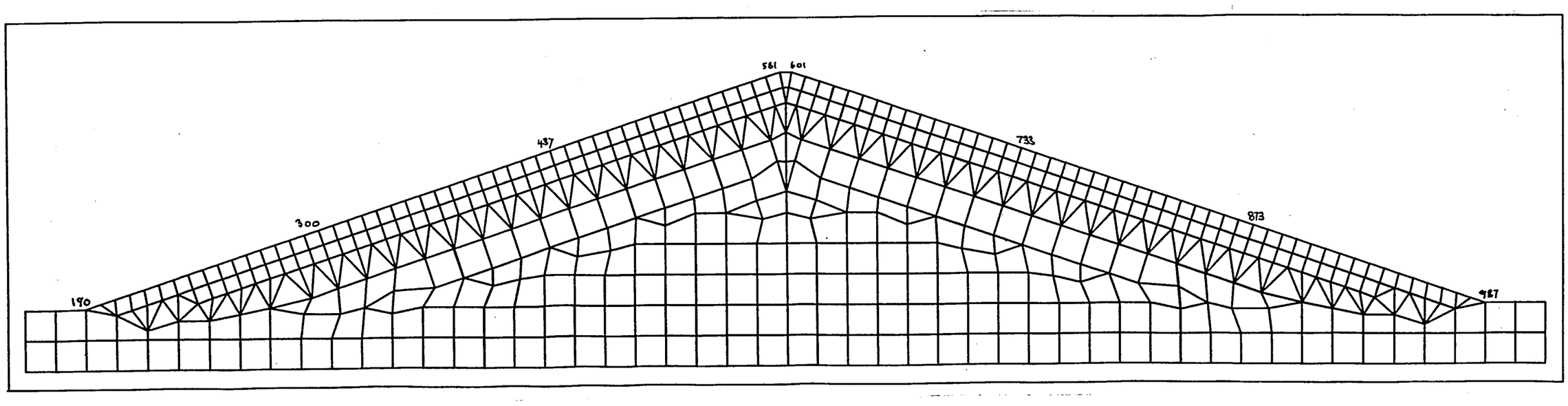


Fig. B.3. Finite element grid : Embankment Section

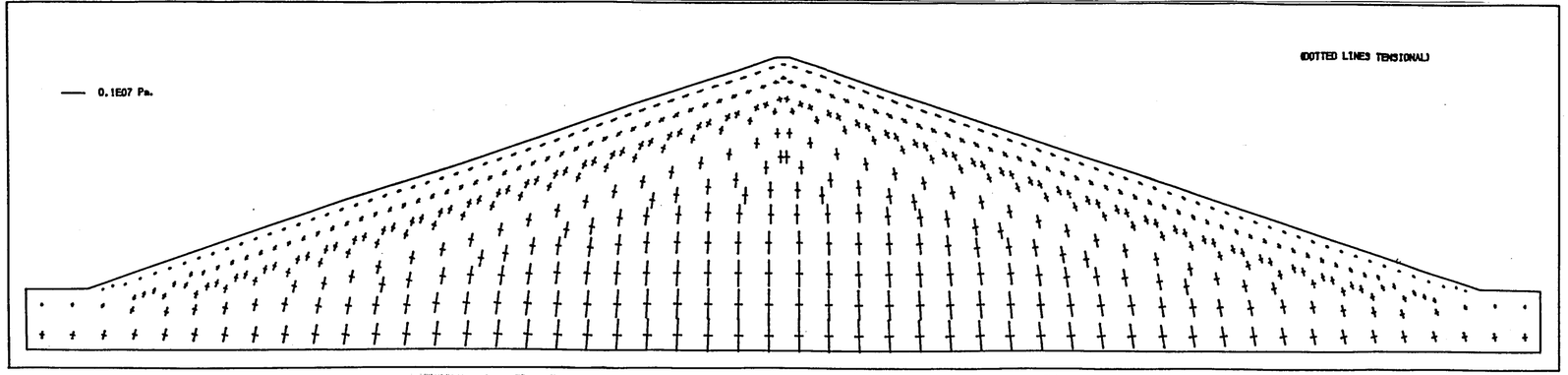


Fig B.4

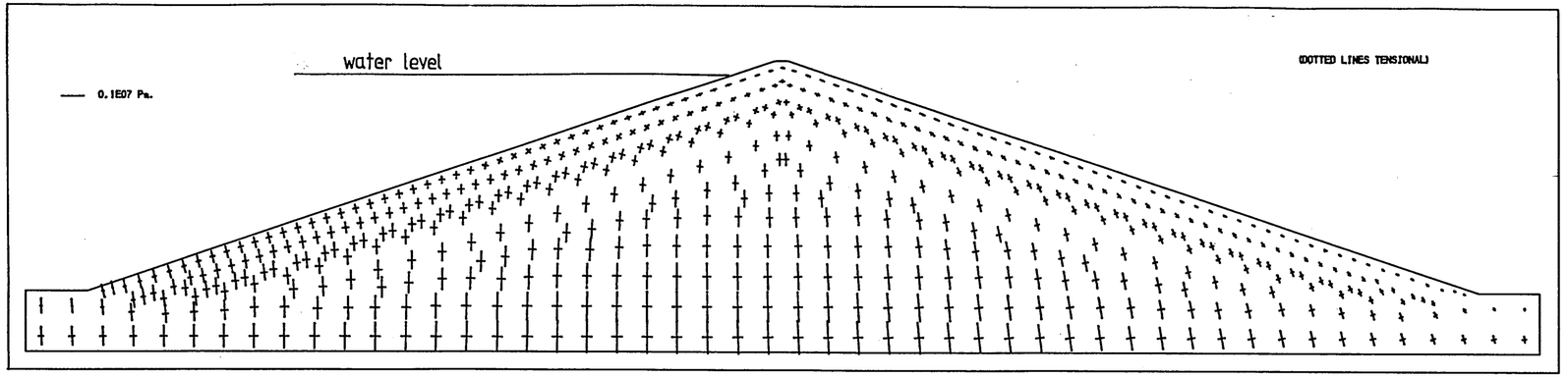


Fig B.5

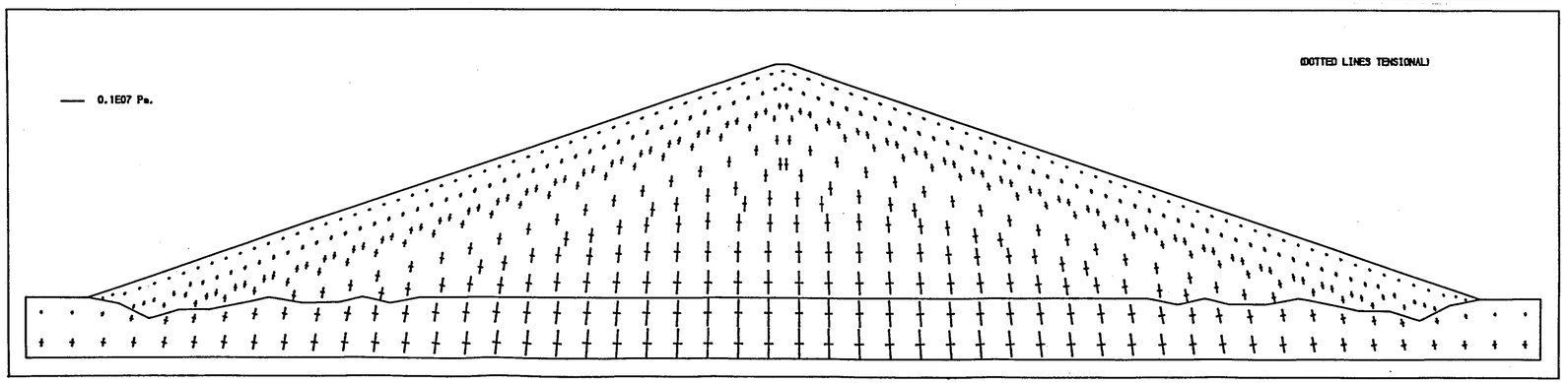


Fig B.6

Static stress distributions

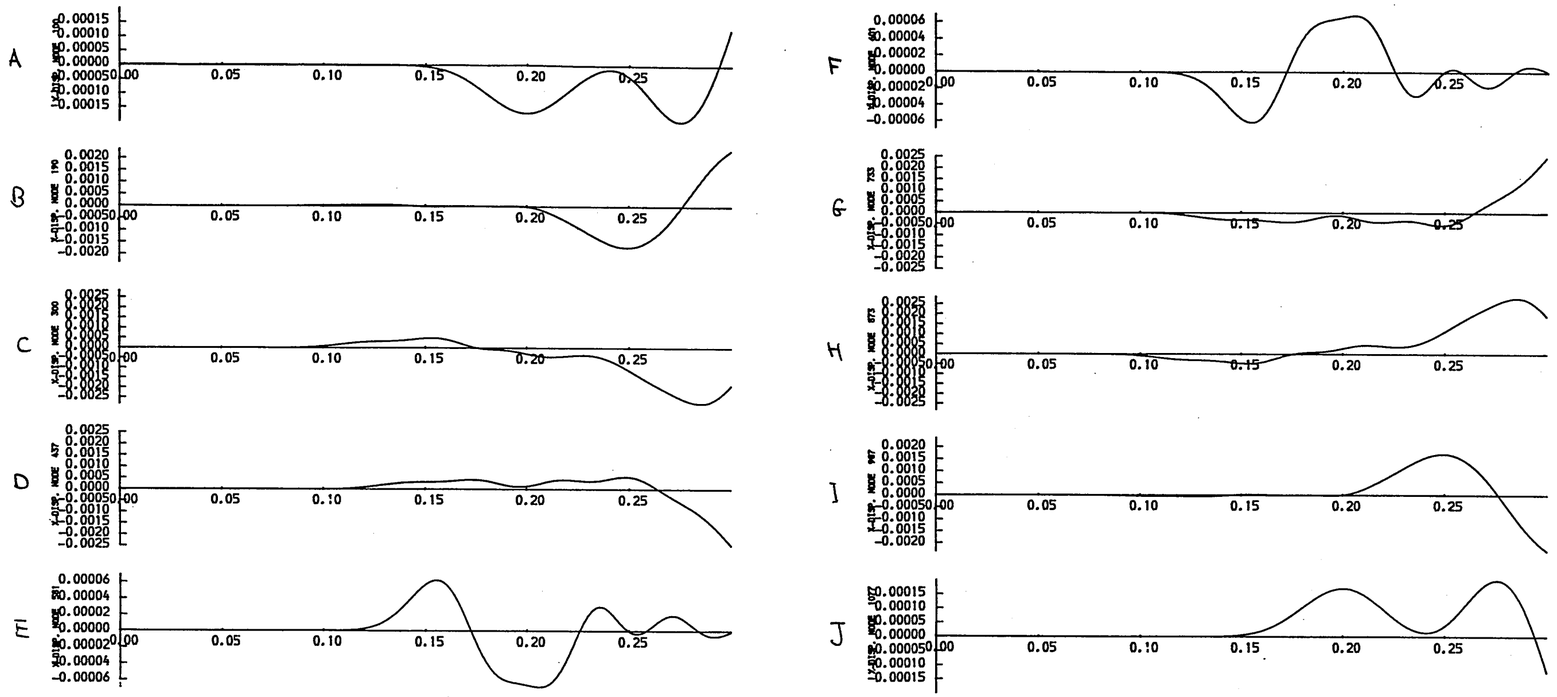
Time-displacement graphs and stress distributions for D1/1

P-wave

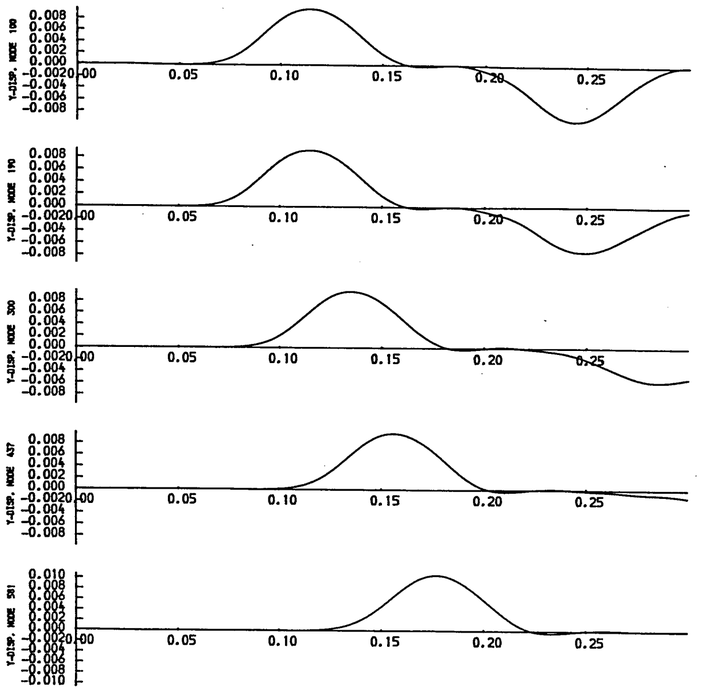
Angle of incidence 0^{o}

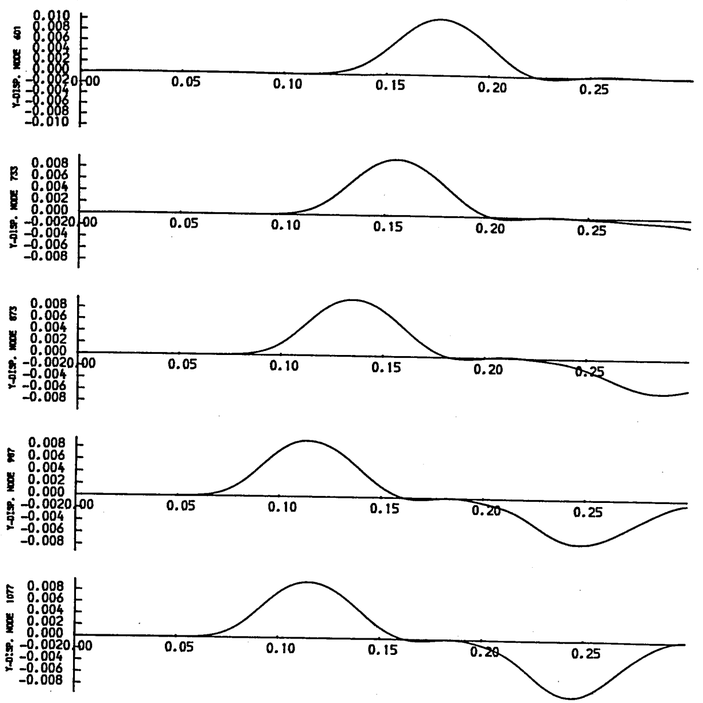
Base acceleration g

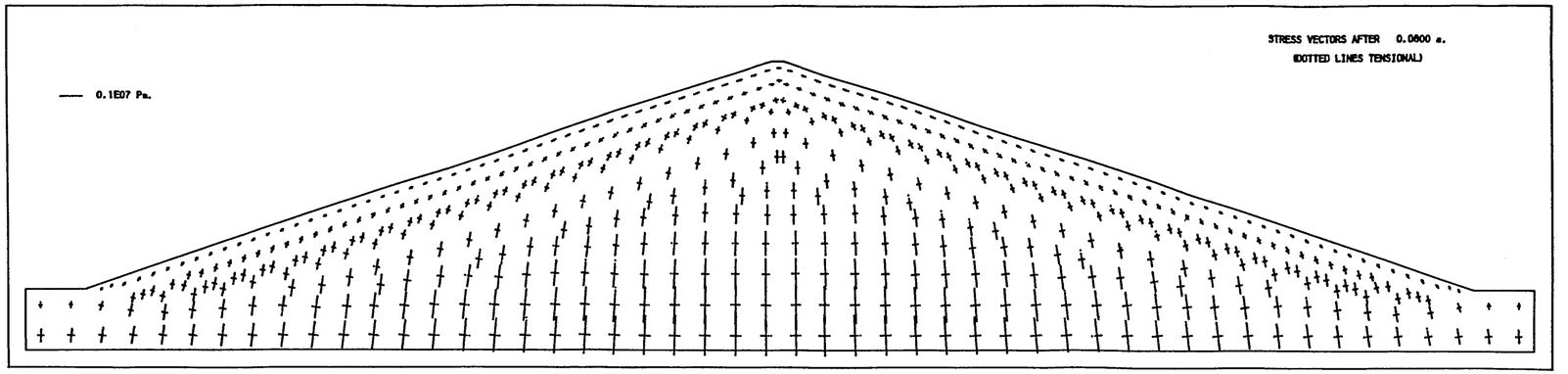
D1/1; P; 0; g



Note. For this and all other time-displacement graphs the displacements are for nodes along the top surface of the embankment. They are the numbered nodes of Fig B.1 and Fig B.3, and for clarity are labelled A to J on this page and on Fig B.1. For each model x-displacements are given first, followed by y-displacements for the same nodes.


Y-DISP, MODE 189
Y-DISP, MODE 190
Y-DISP, MODE 300
Y-DISP, MODE 437
Y-DISP, MODE 581
0.05
0.10
0.15
0.20
0.25


Y-DISP, MODE 401
Y-DISP, MODE 733
Y-DISP, MODE 873
Y-DISP, MODE 997
Y-DISP, MODE 1077
0.05
0.10
0.15
0.20
0.25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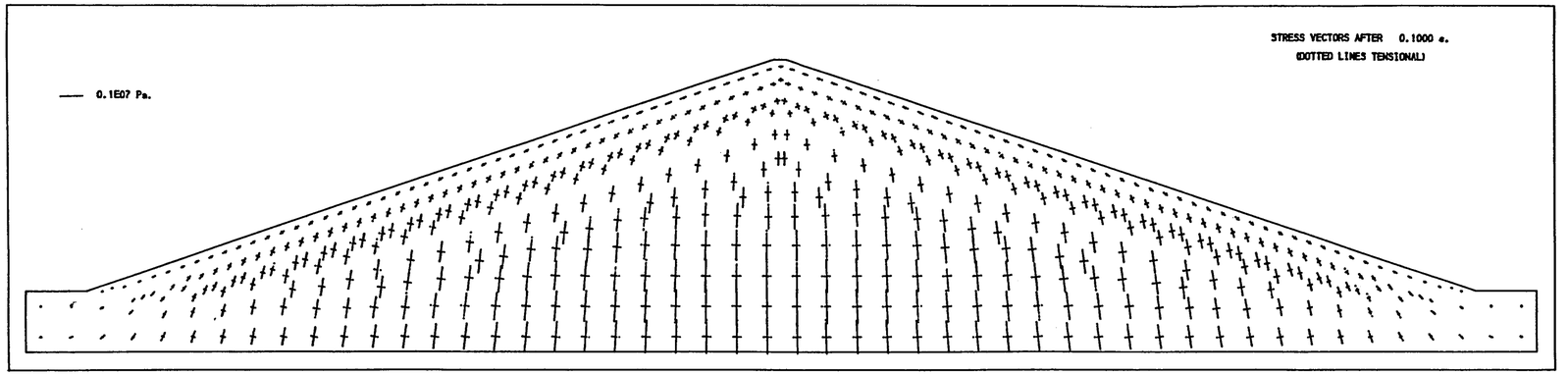
(DOTTED LINES TENSIONAL)
0.1E07 Pa.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(DOTTED LINES TENSIONAL)
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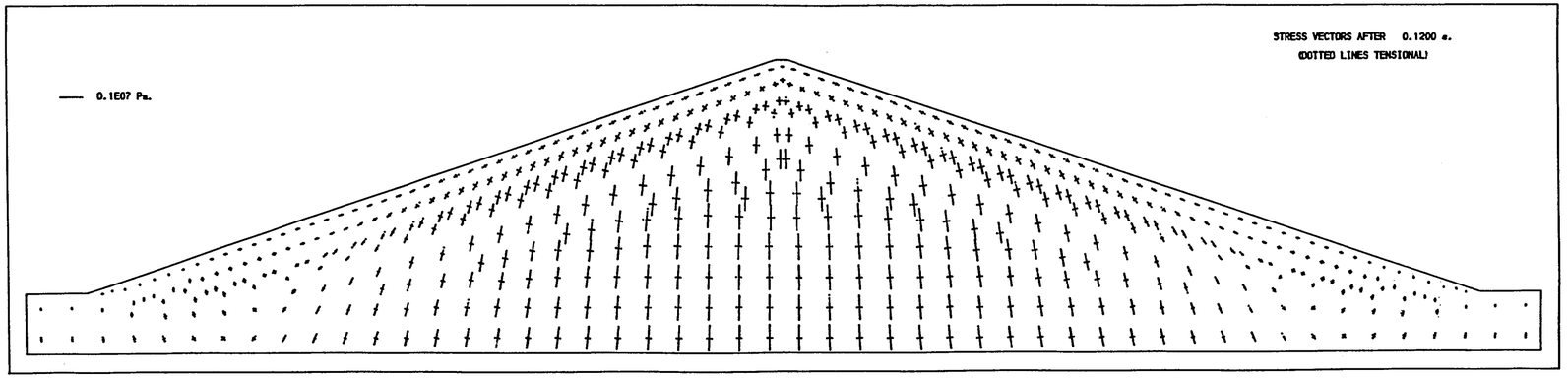
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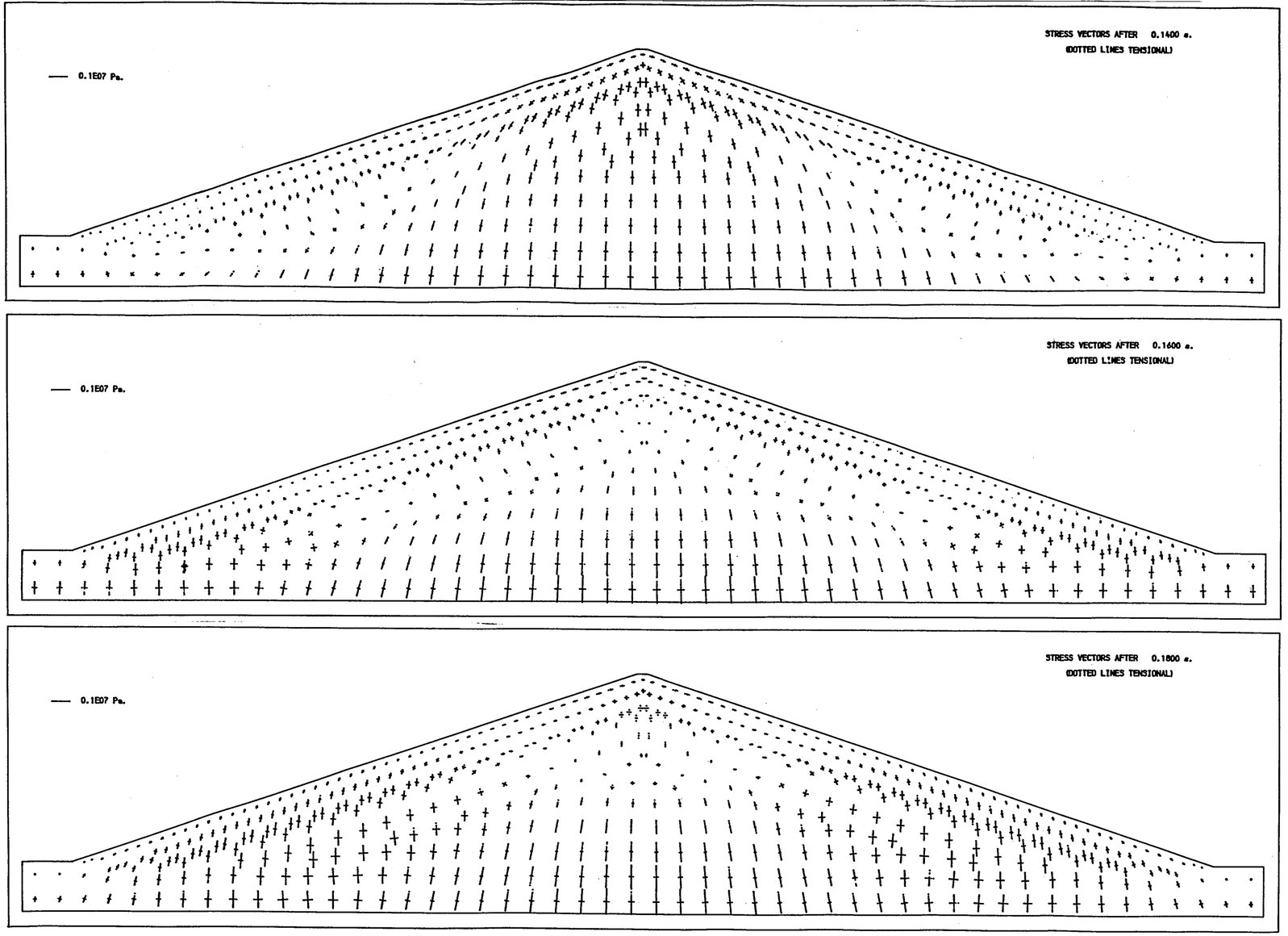
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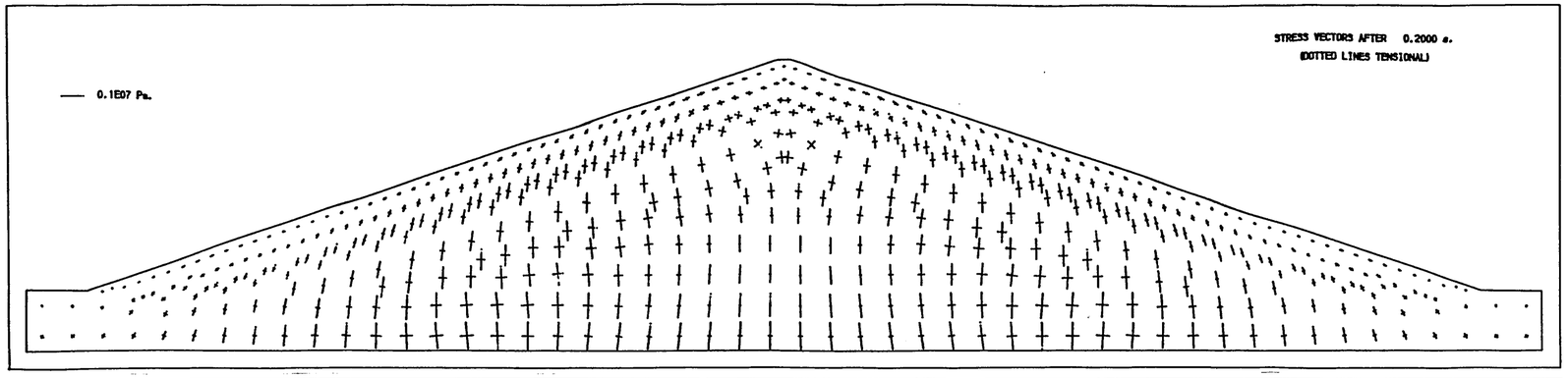
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.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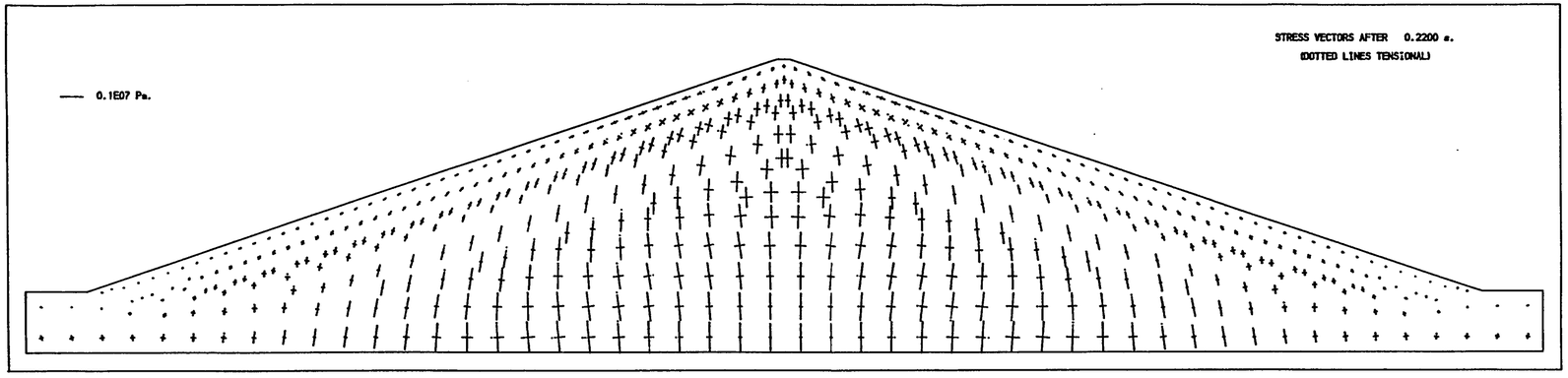
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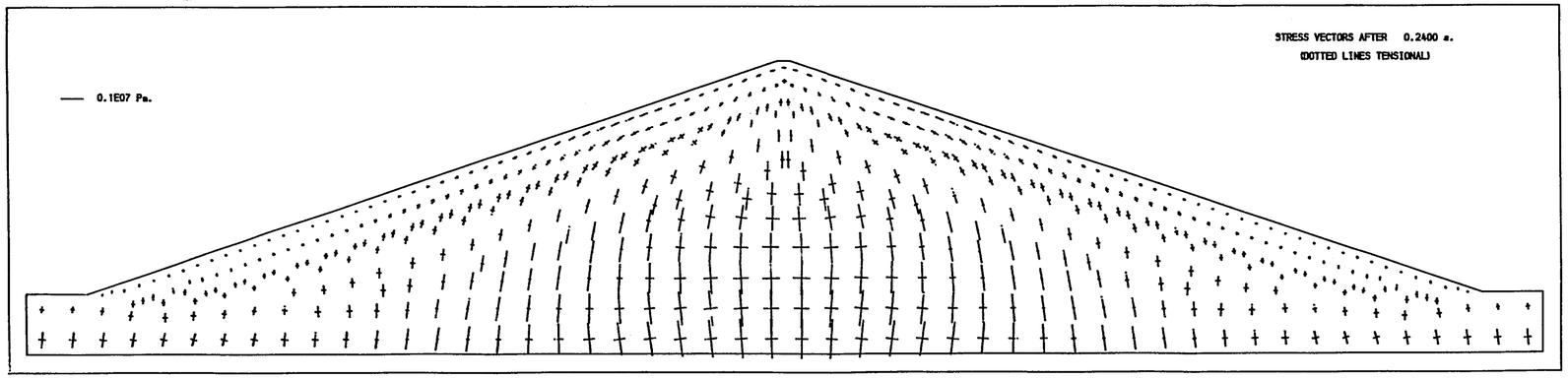
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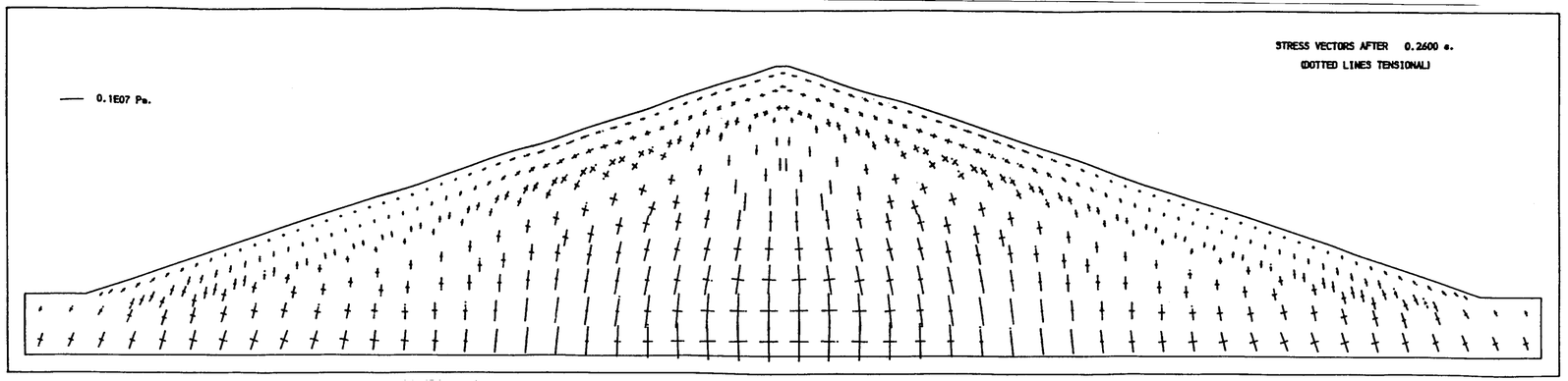
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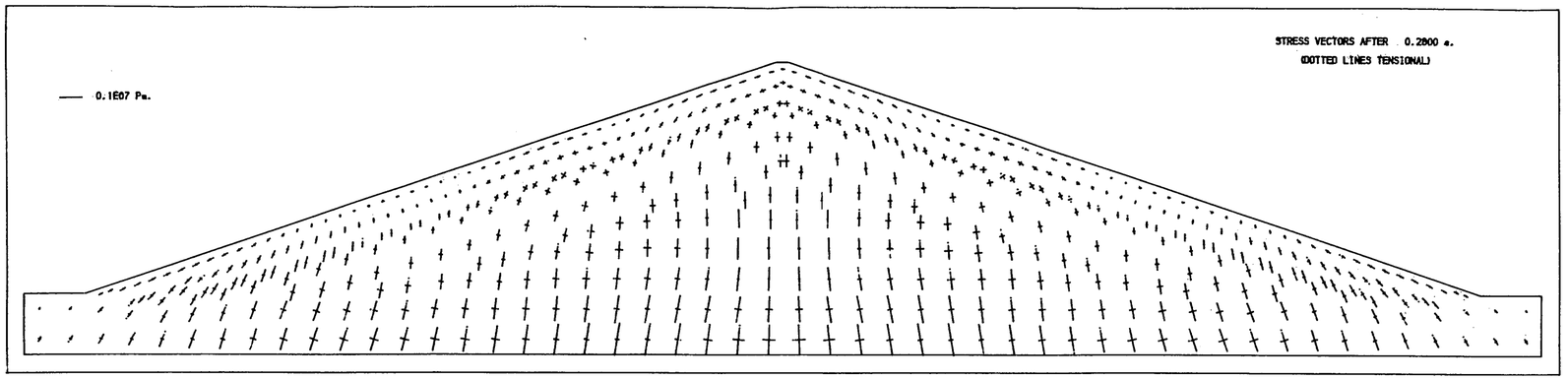
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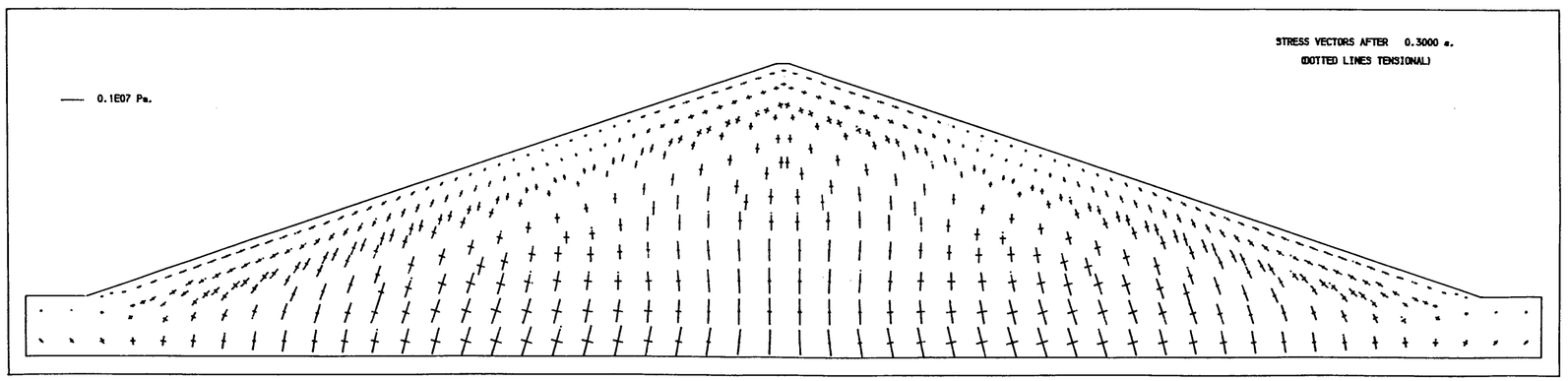
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
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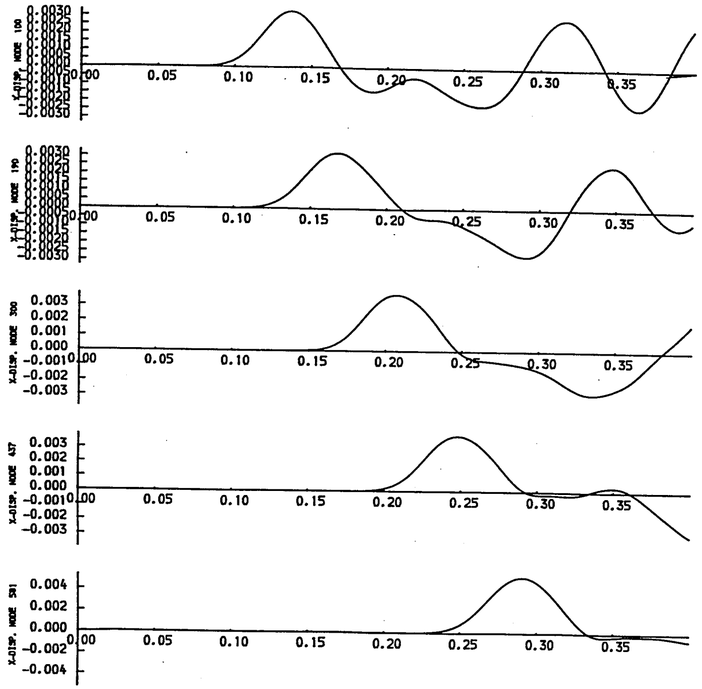
Time-displacement graphs and stress distributions for D1/2

P-wave

Angle of incidence 20^{o}

Base acceleration g

D1/2; P; 20; g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X-DISP. MODE 300
X-DISP. MODE 437
X-DISP. MODE 591
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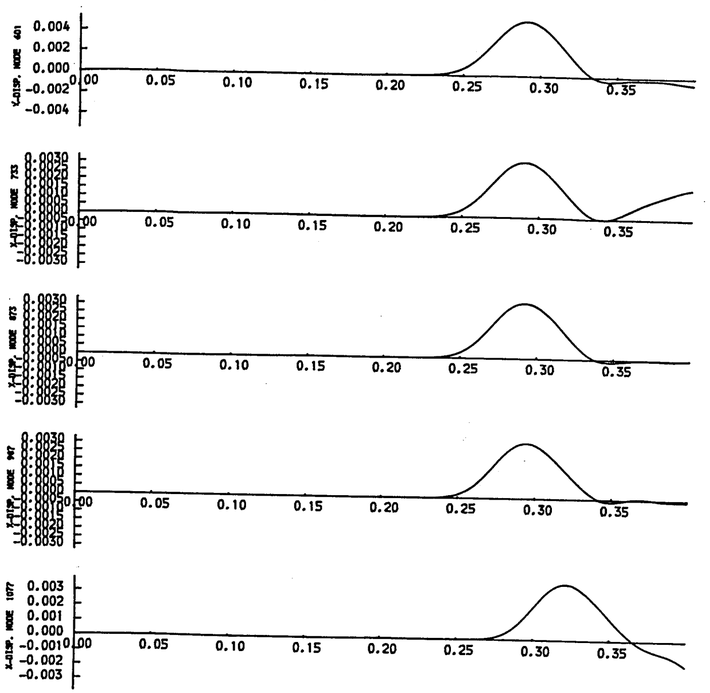
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X-DISP. MODE 733
X-DISP. MODE 873
X-DISP. MODE 947
X-DISP. MODE 1077
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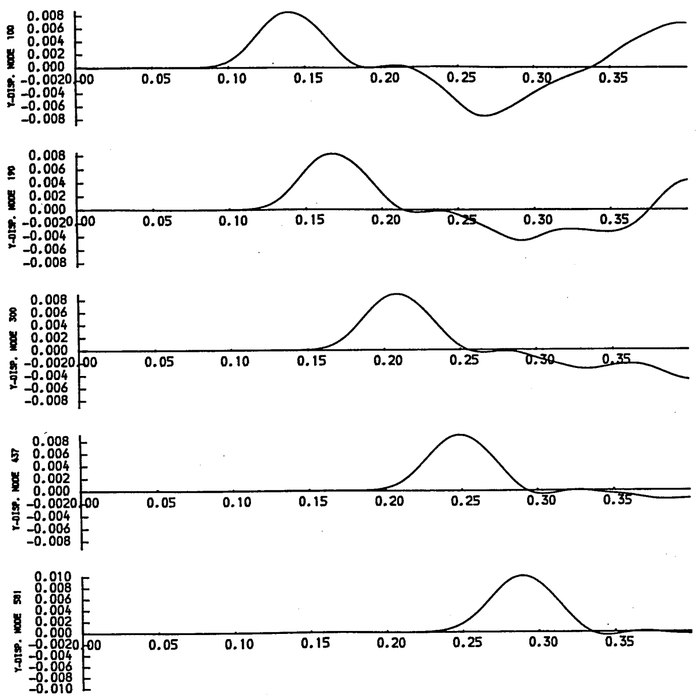
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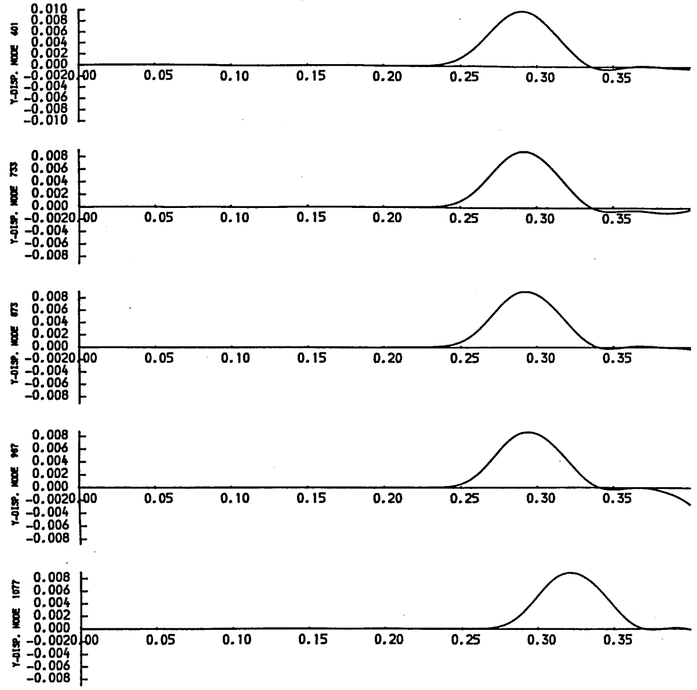
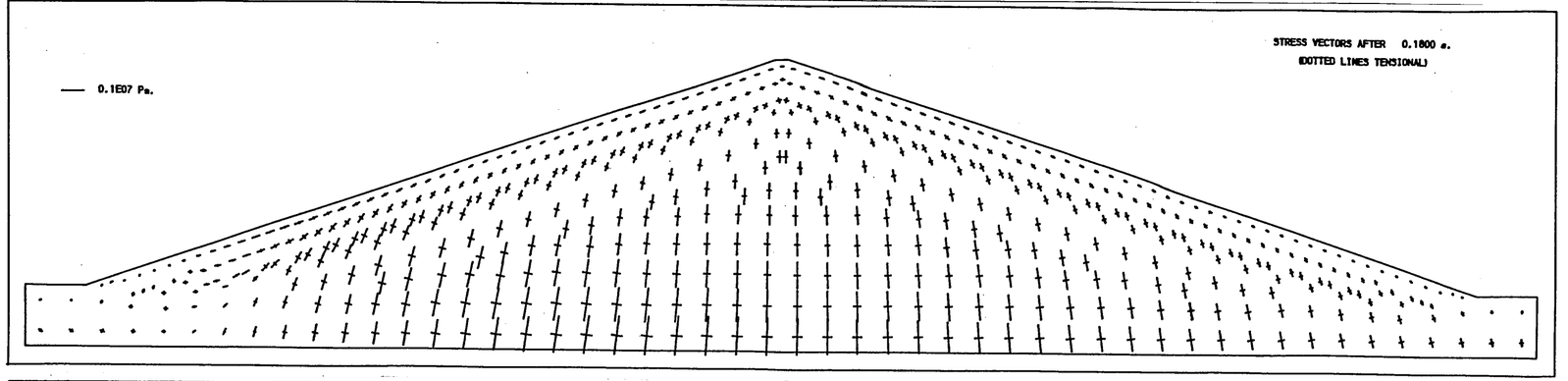
Y-DISP. MODE 190
Y-DISP. MODE 300
Y-DISP. MODE 437
Y-DISP. MODE 591
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35


Y-DISP. MODE 401
Y-DISP. MODE 733
Y-DISP. MODE 873
Y-DISP. MODE 947
Y-DISP. MODE 1077
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35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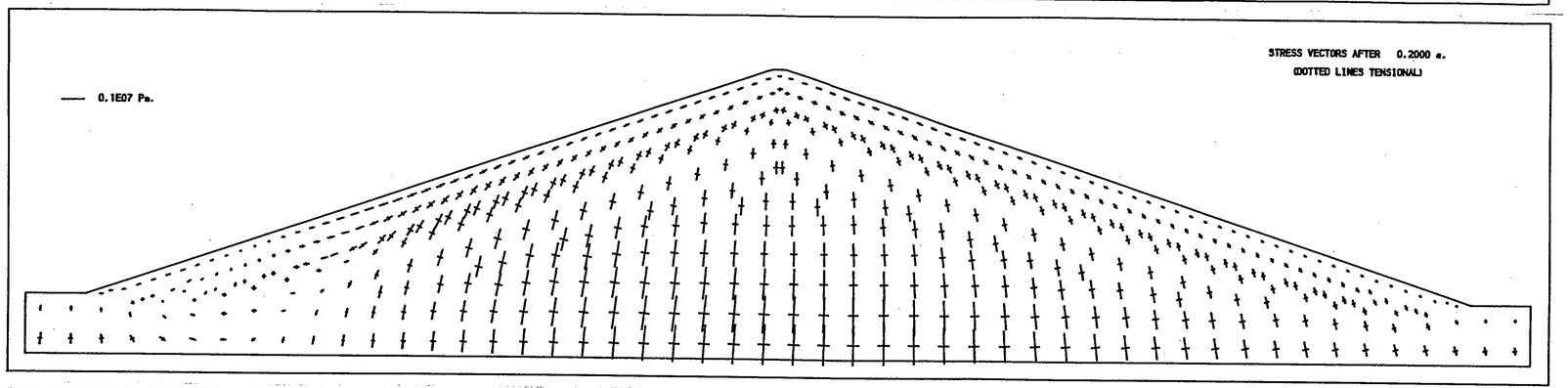
(DOTTED LINES TENSIONAL)
0.1E07 Pa.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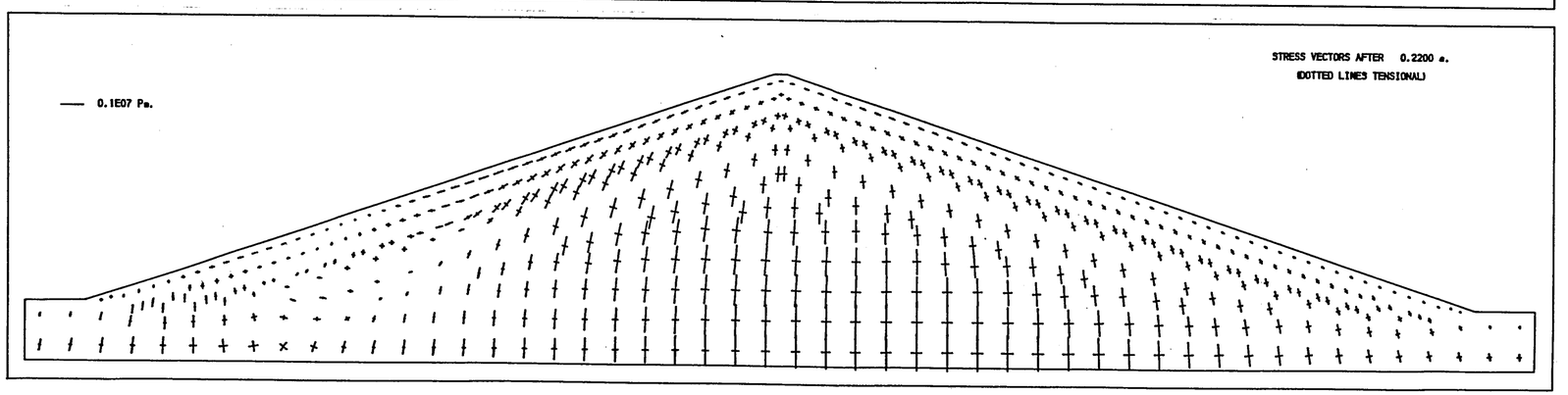
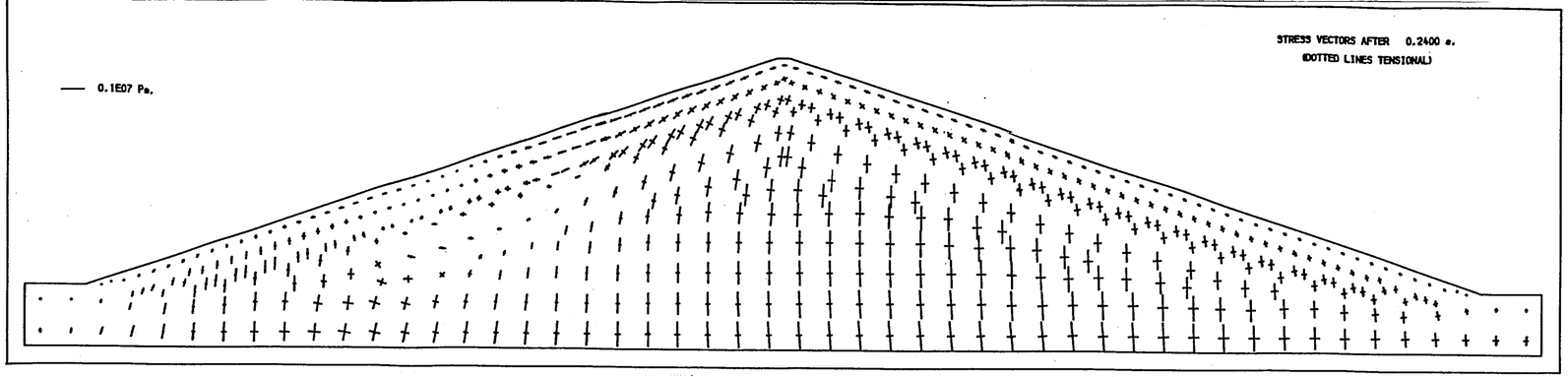
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.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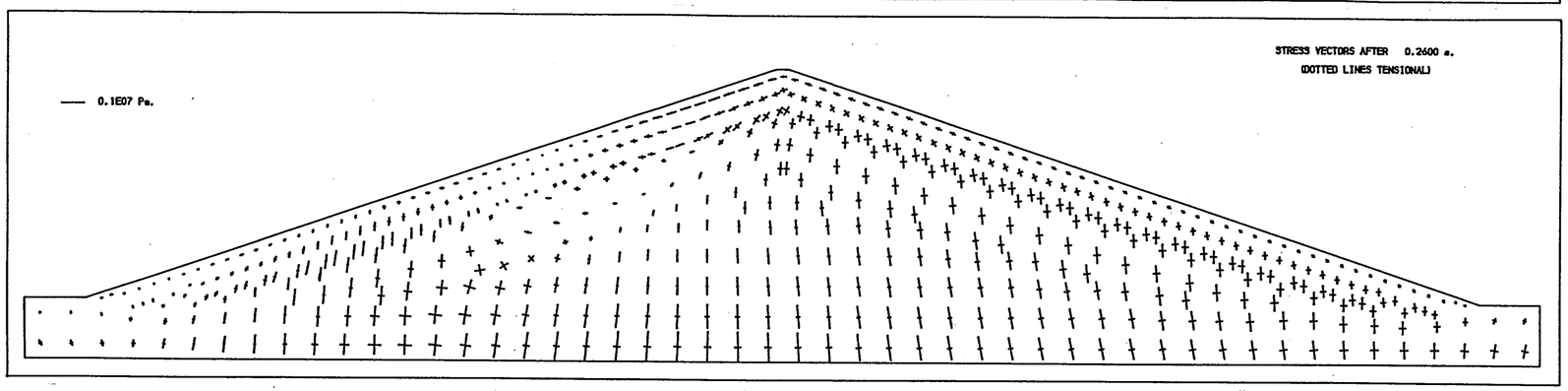
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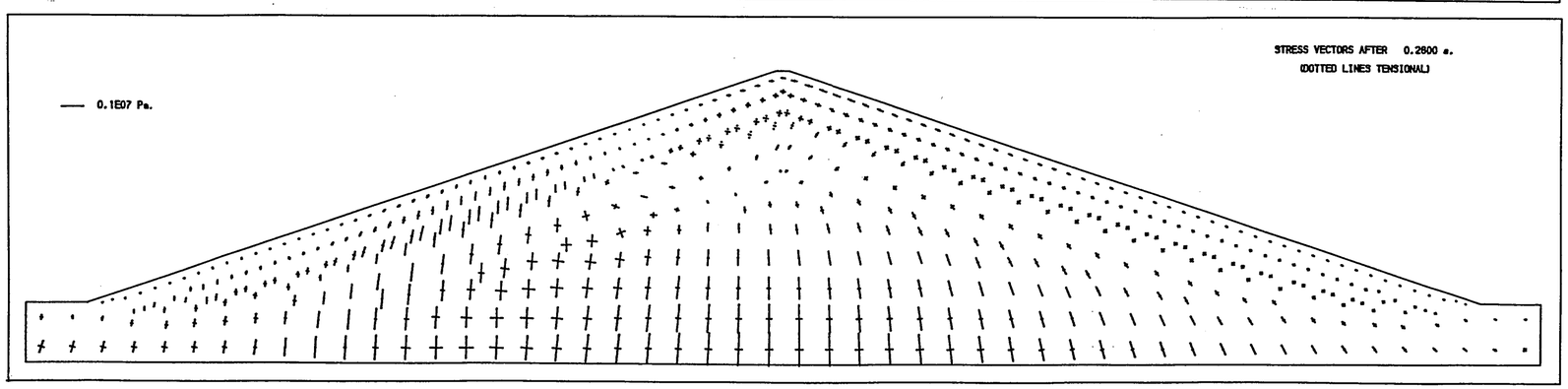
0.1E07 Pa.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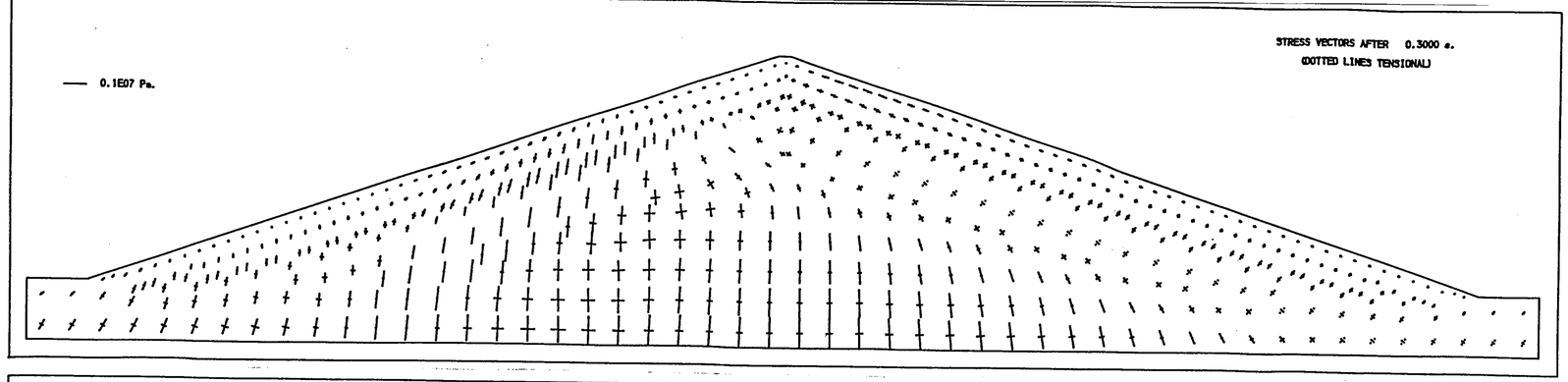
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3000 e.
(DOTTED LINES TENSIONAL)
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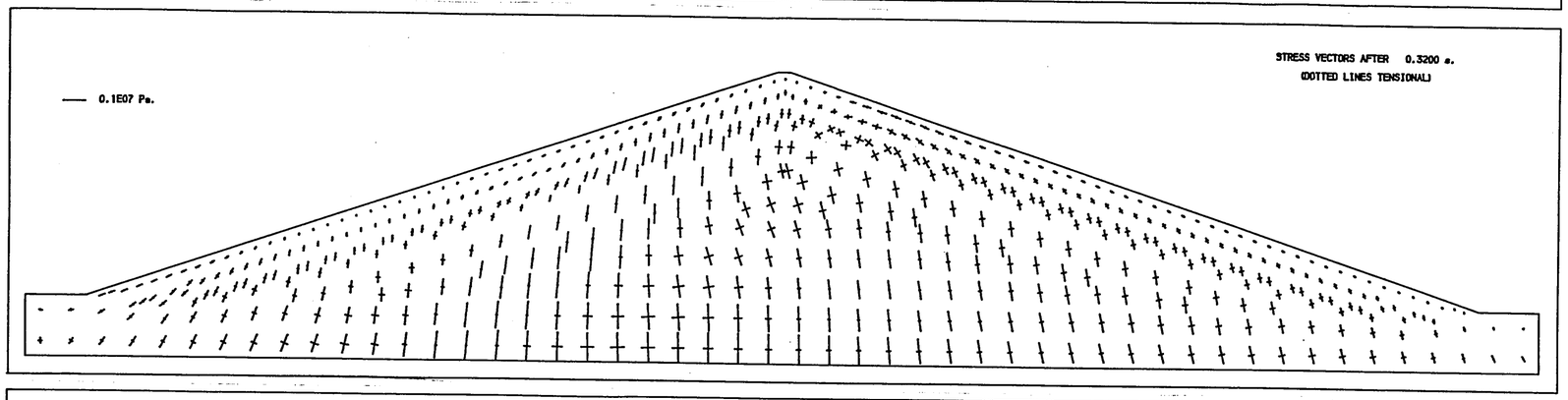
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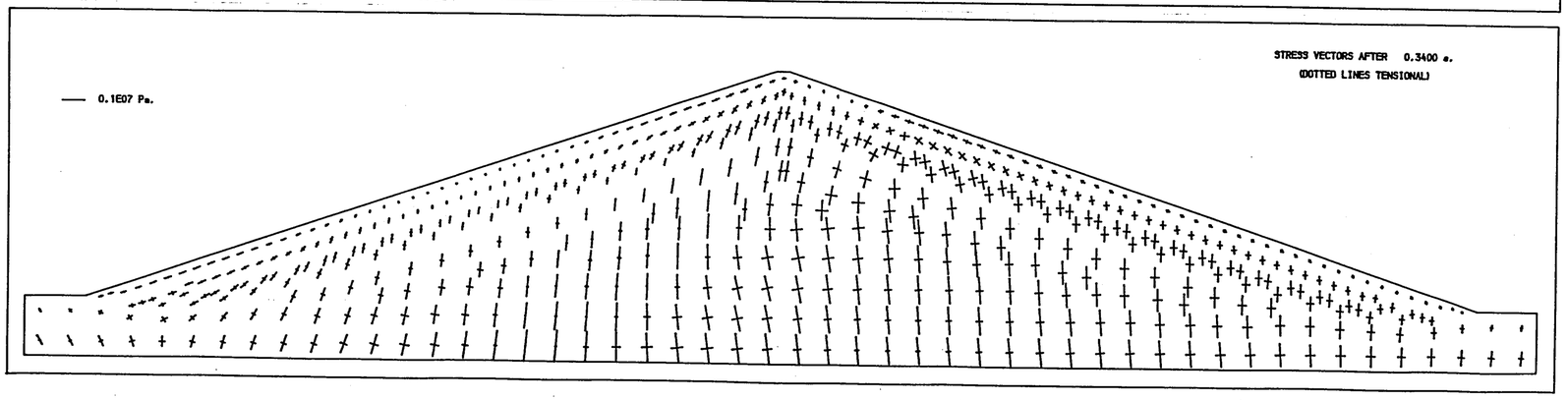
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(DOTTED LINES TENSIONAL)
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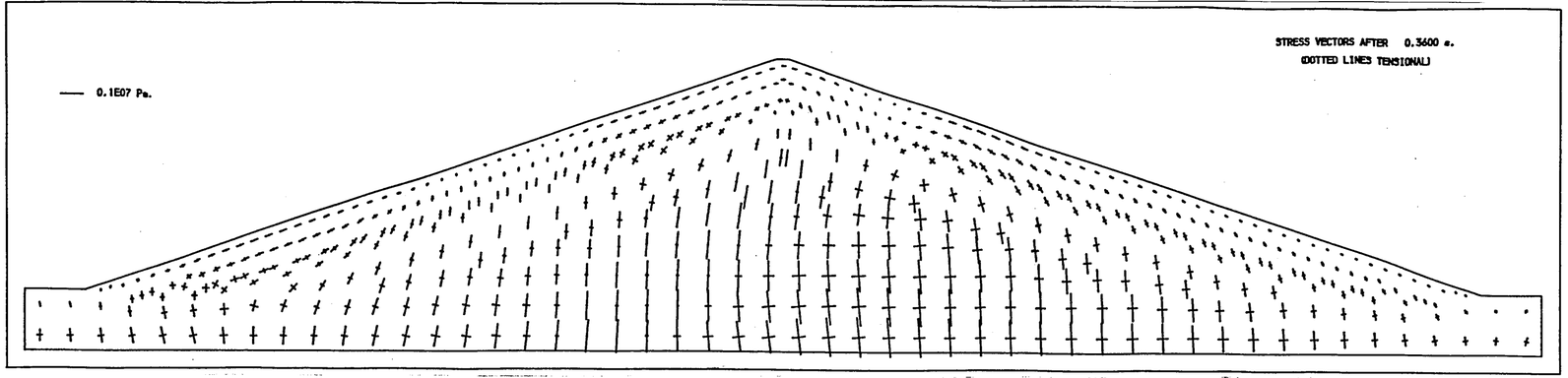
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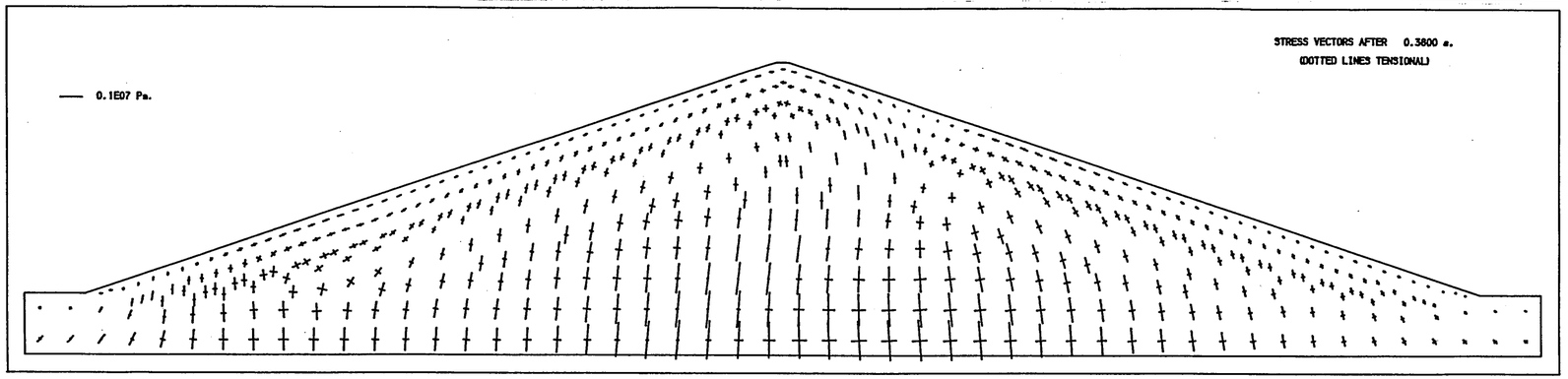
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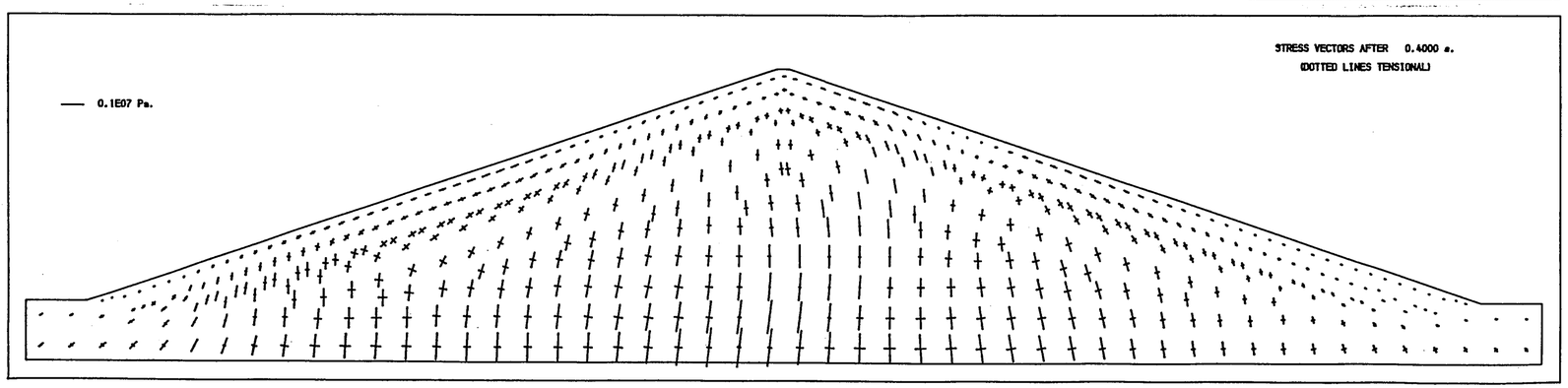

STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

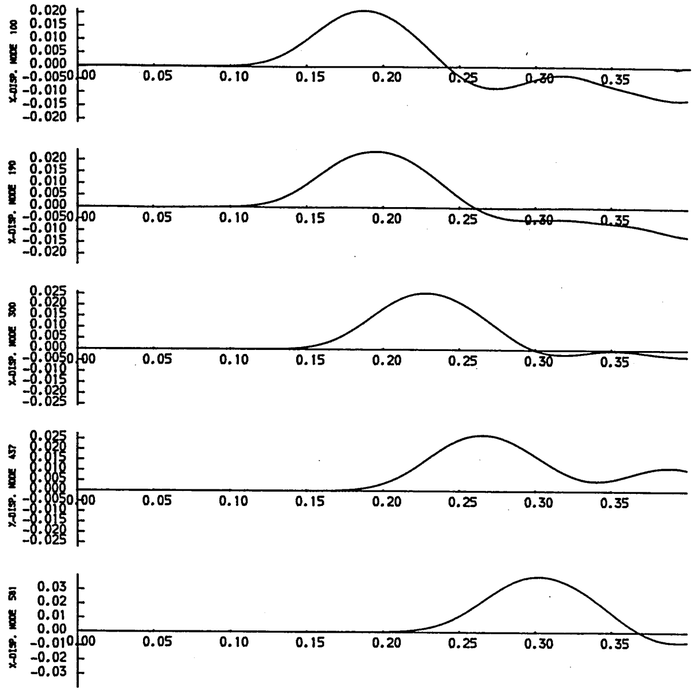
Time-displacement graphs and stress distributions for D1/3

S-wave

Angle of incidence 0^{o}

Base acceleration g

D1/3; S; 0; g


X-DISP. MODE 100
X-DISP. MODE 199
X-DISP. MODE 300
X-DISP. MODE 437
X-DISP. MODE 591
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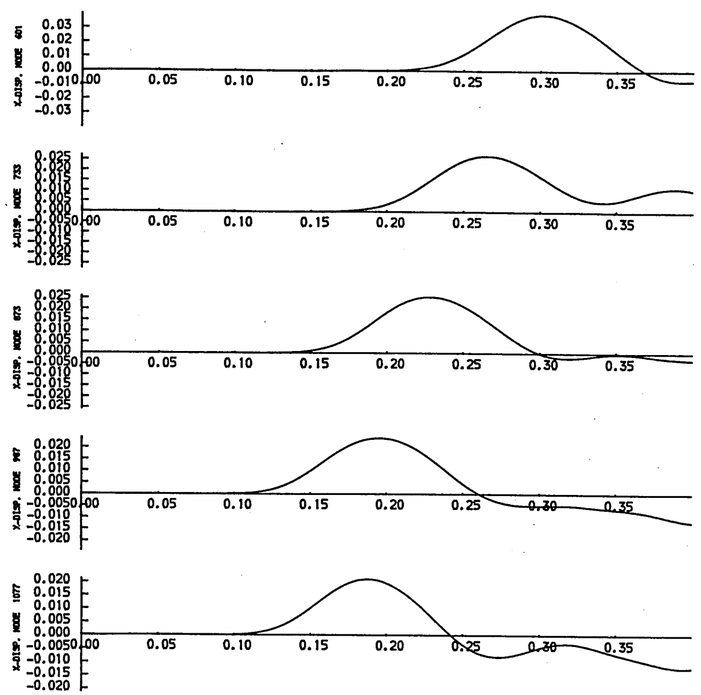
X-DISP. MODE 601
X-DISP. MODE 733
X-DISP. MODE 875
X-DISP. MODE 947
X-DISP. MODE 1077
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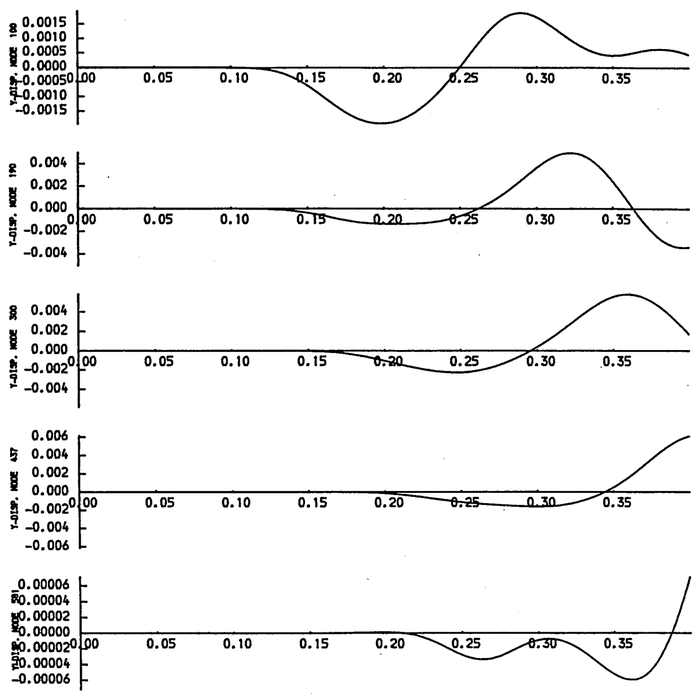
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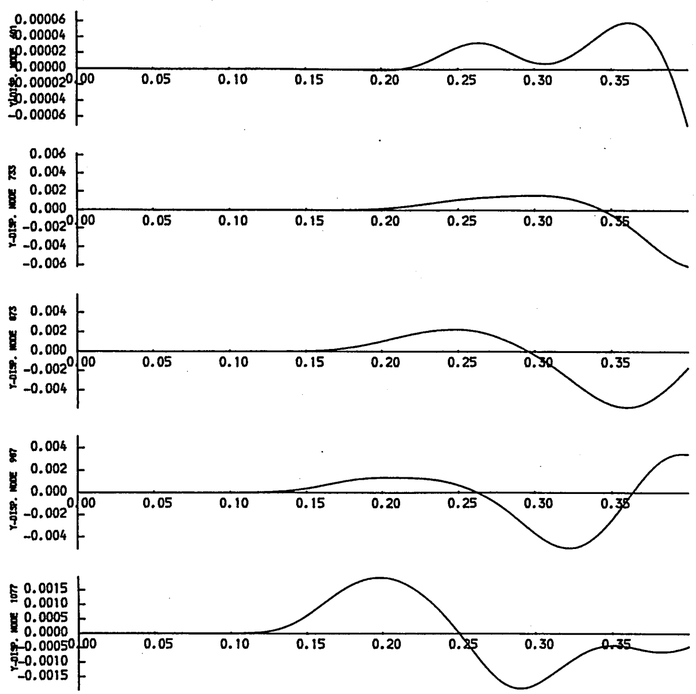
0.0010
0.0005
0.0000
-0.0005
-0.0010
-0.0015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP. MODE 190
0.004
0.002
0.000
-0.002
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP. MODE 300
0.004
0.002
0.000
-0.002
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP. MODE 437
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
0.00006
0.00004
0.00002
0.00000
-0.00002
-0.00004
-0.00006
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35


0.00006
0.00004
0.00002
0.00000
-0.00002
-0.00004
-0.00006
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP. MODE 733
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP. MODE 873
0.004
0.002
0.000
-0.002
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP. MODE 947
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0.000
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0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP. MODE 1077
0.0015
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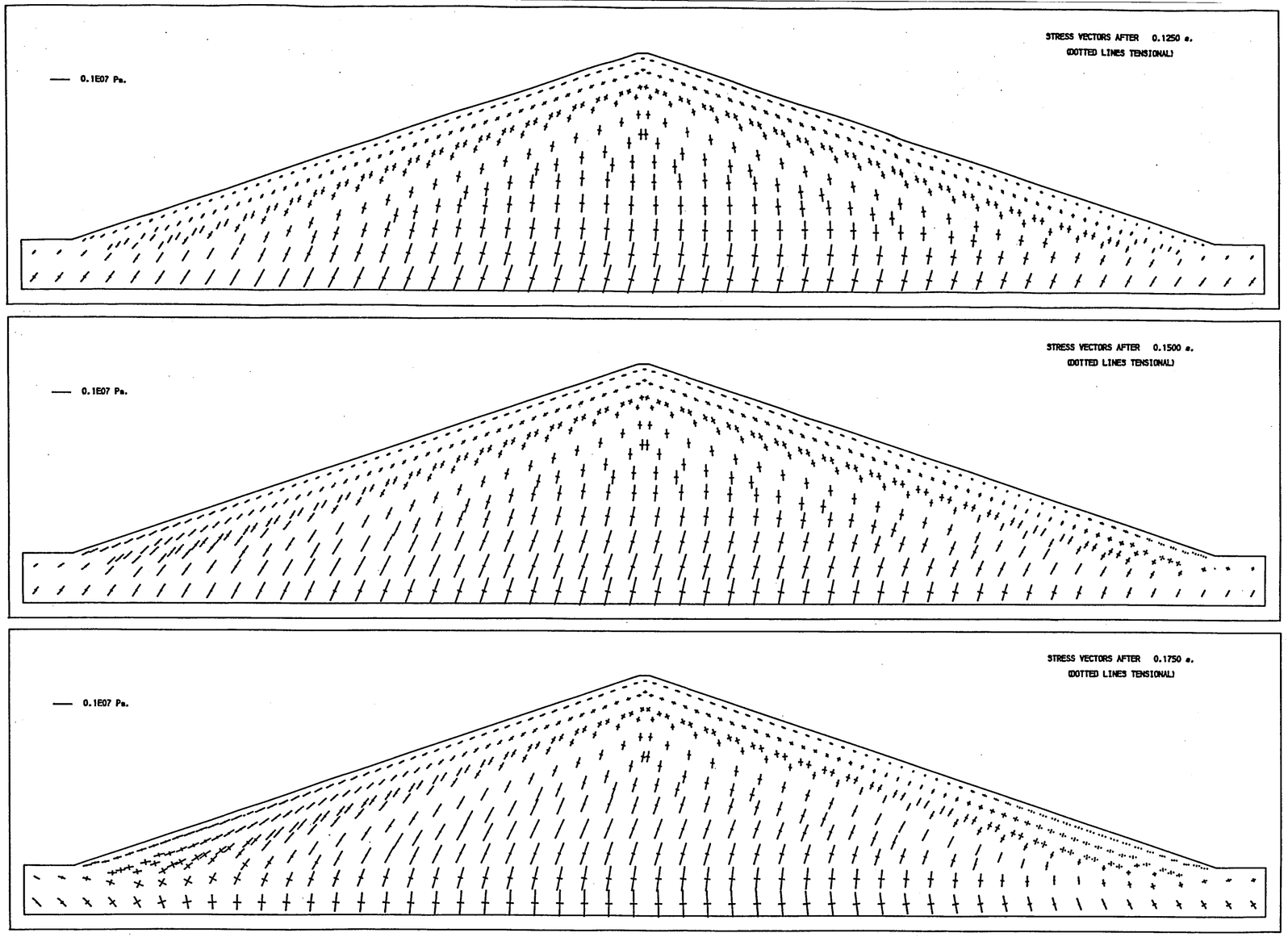
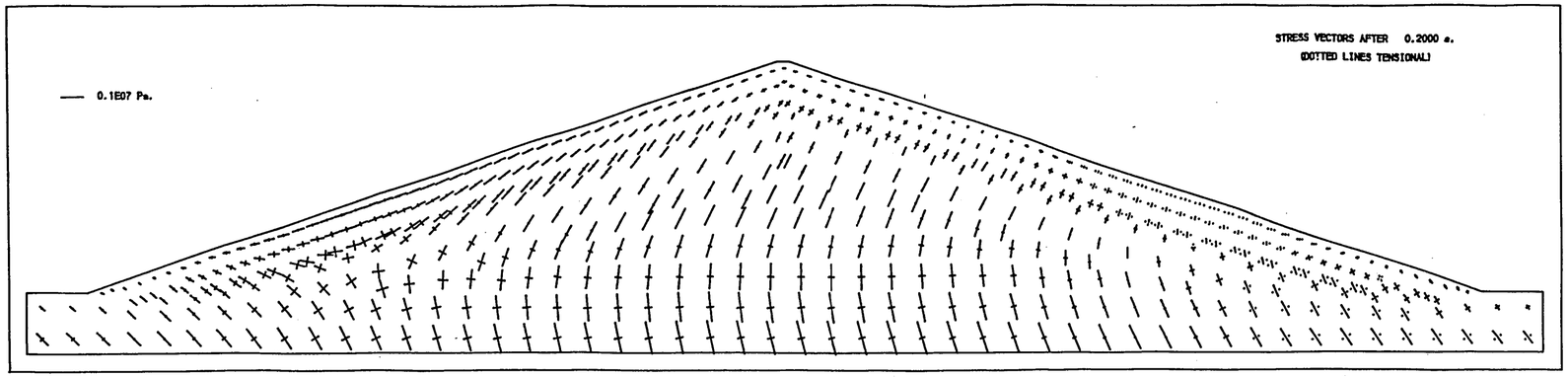
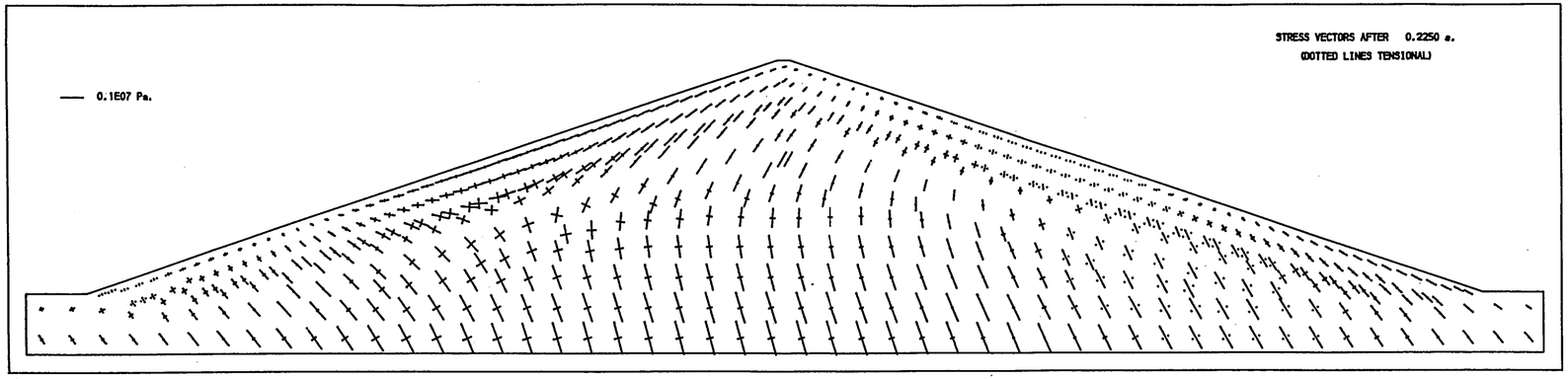
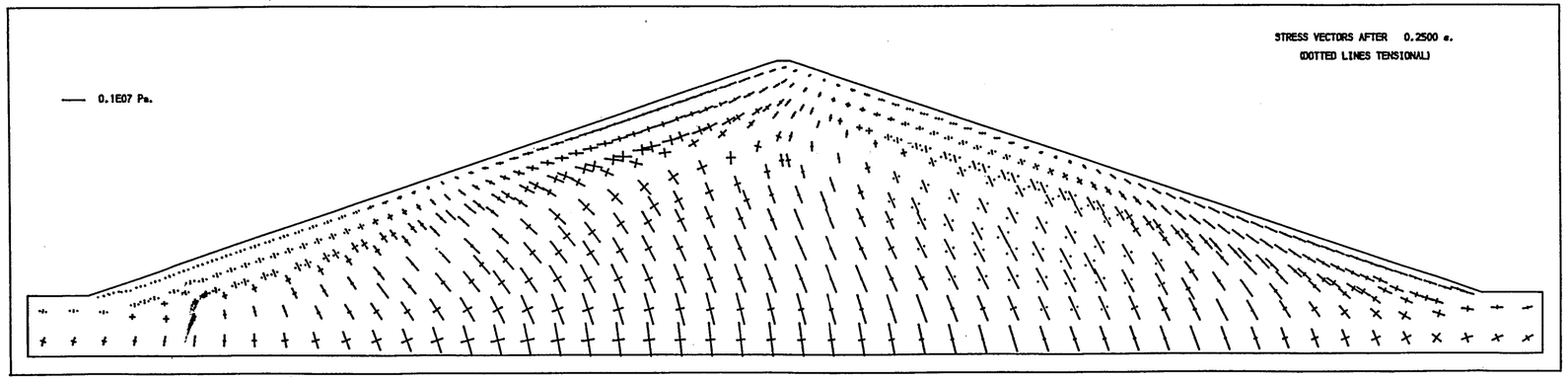
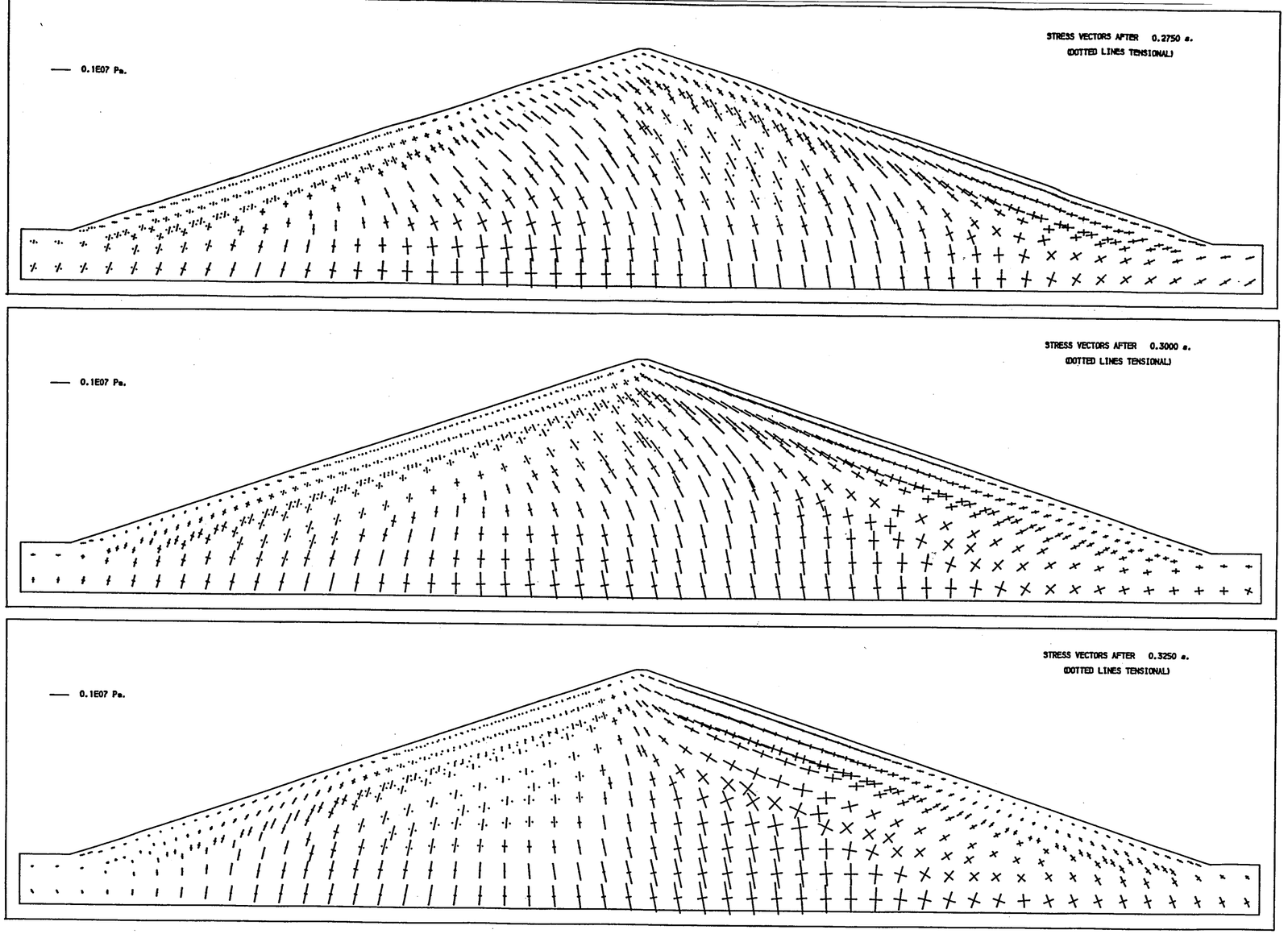
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35

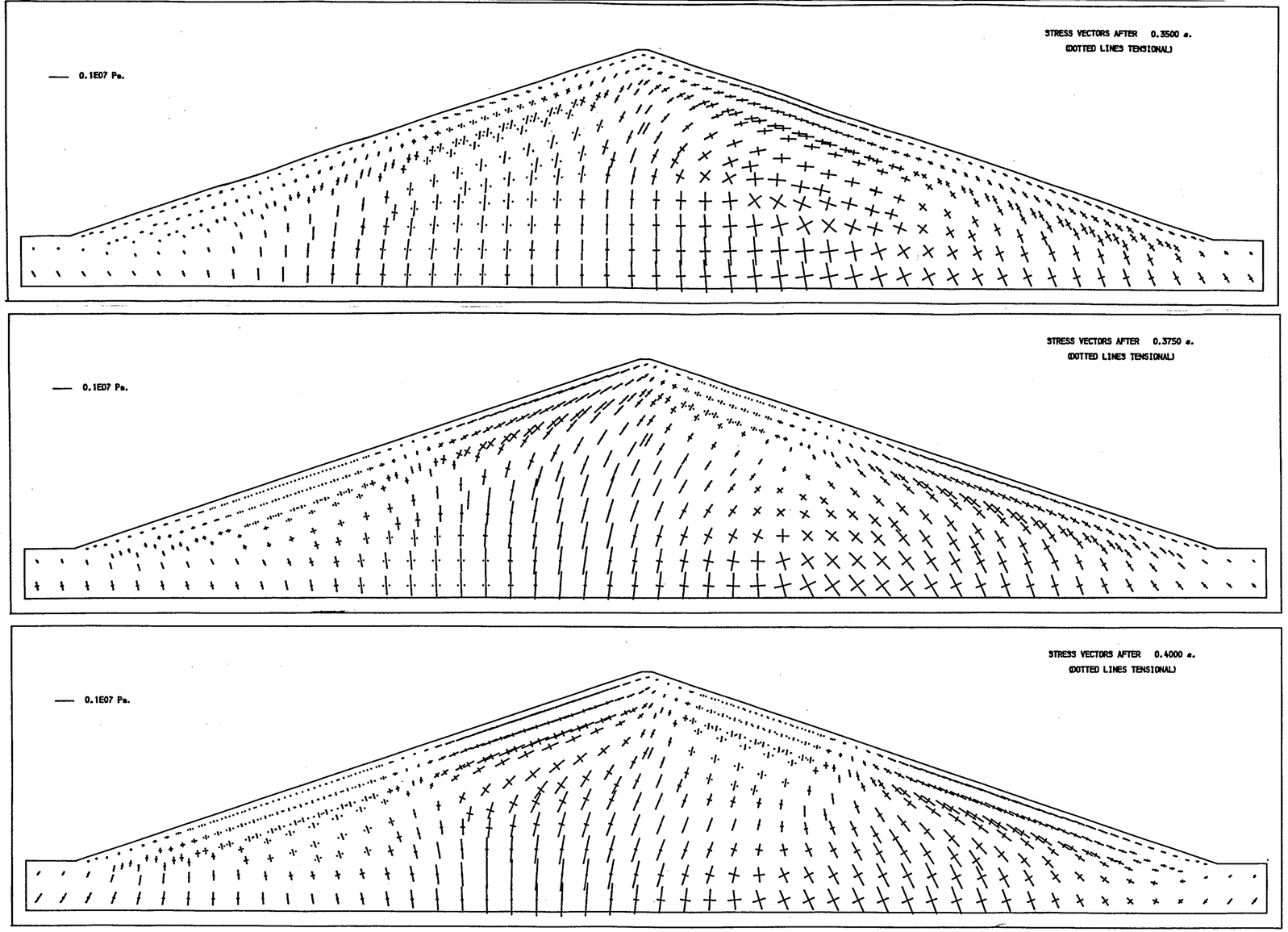

STRESS VECTORS AFTER 0.1250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

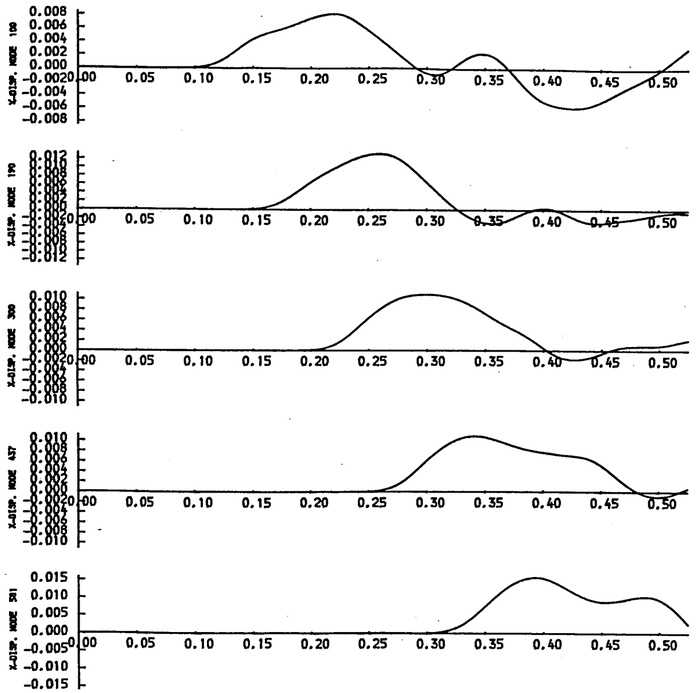

STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

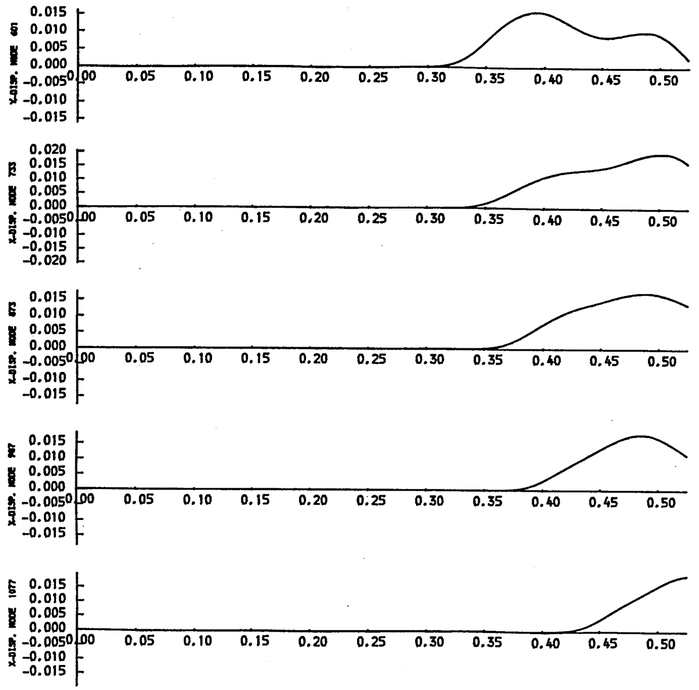
Time-displacement graphs and stress distributions for D1/4

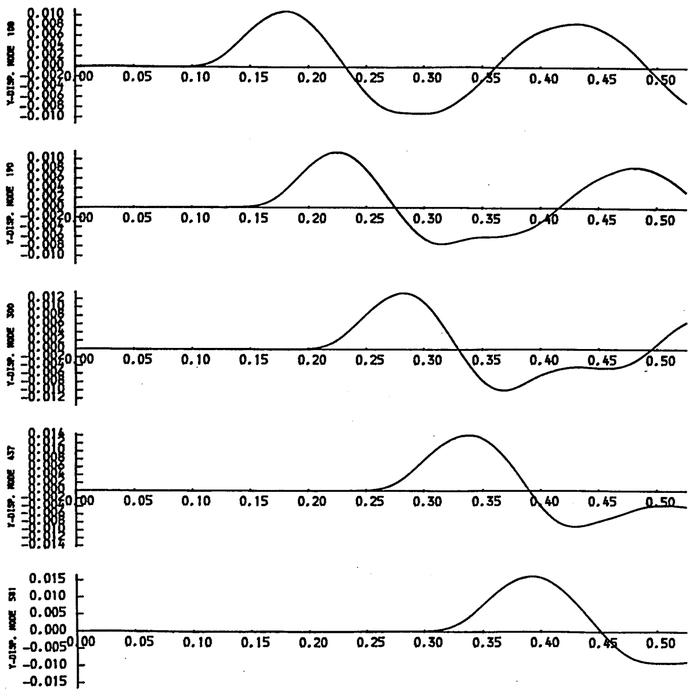
S-wave

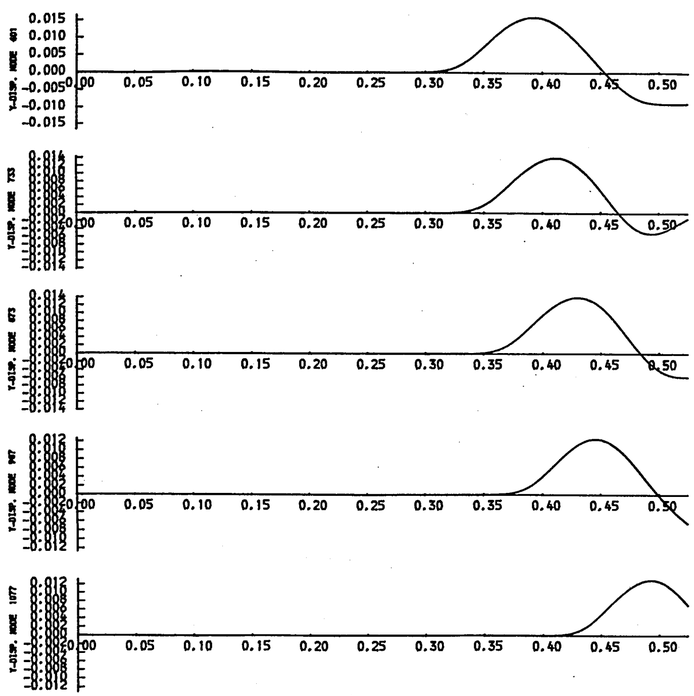
Angle of incidence 20^{o}

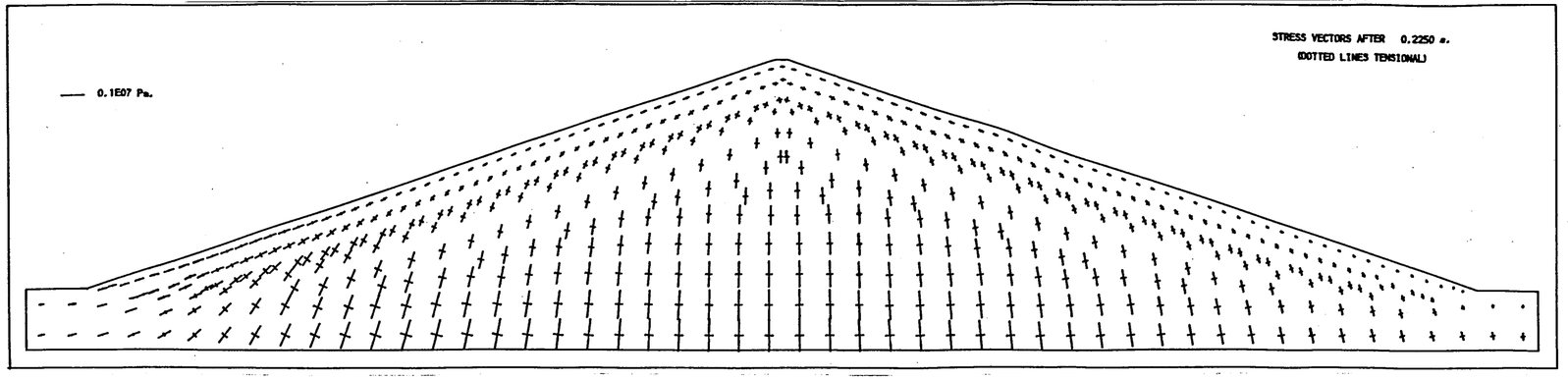
Base acceleration g

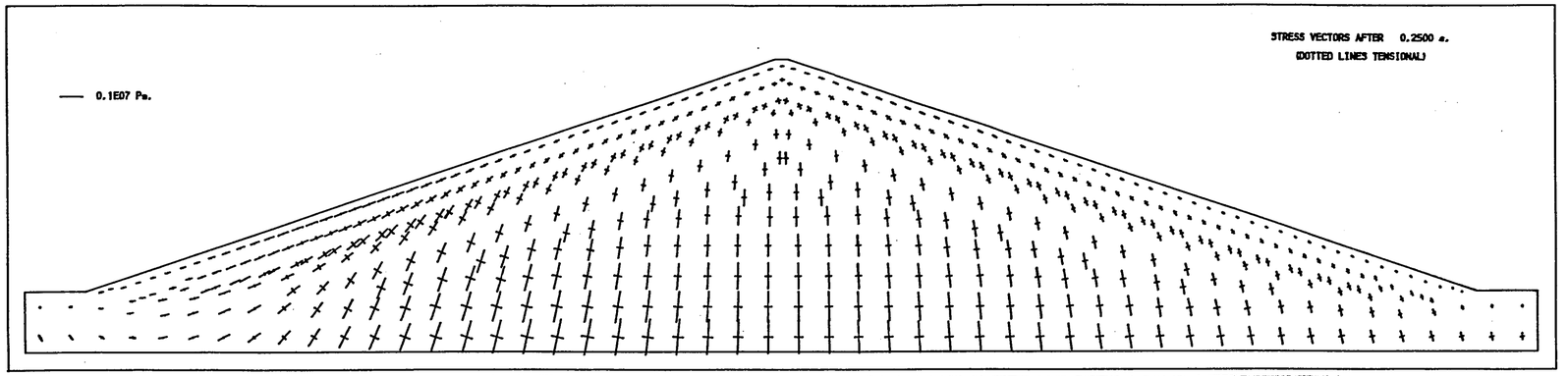

X-DISP, MODE 100
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 190
0.012
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
-0.010
-0.012
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 300
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
-0.010
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 437
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
-0.010
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 581
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50

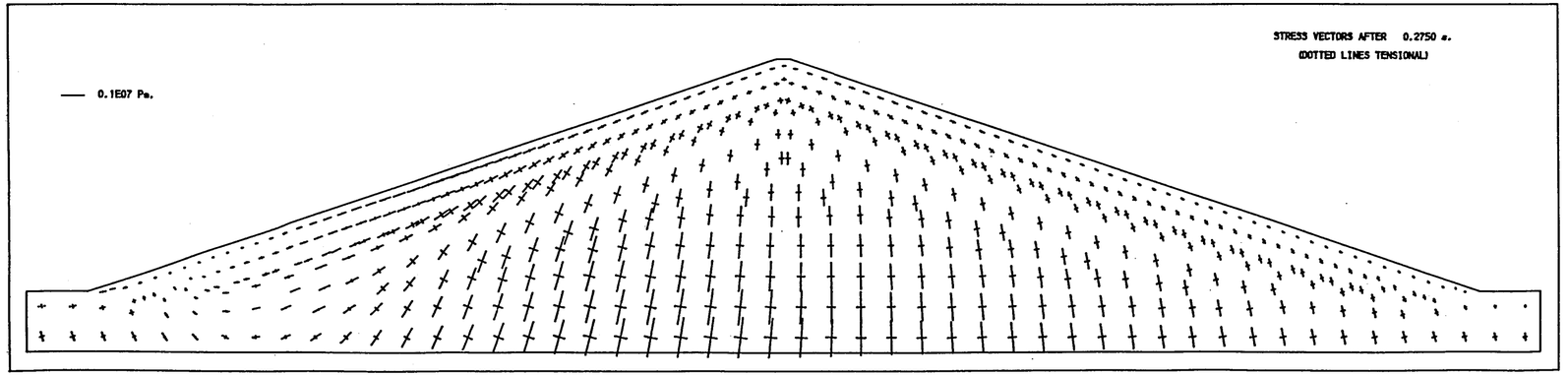

X-DISP, MODE 401
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 733
0.020
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
-0.020
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 873
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 987
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50
X-DISP, MODE 1077
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50

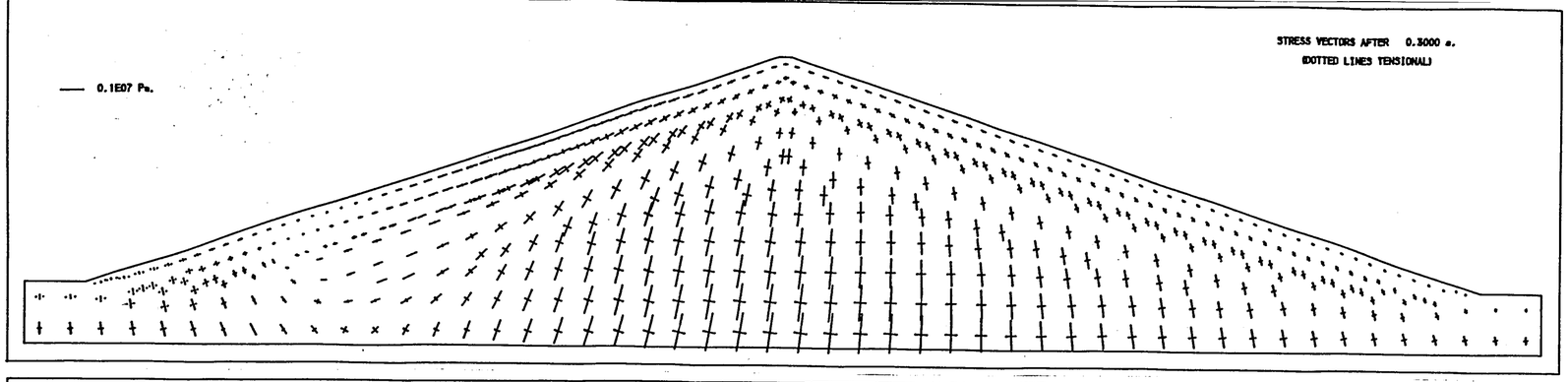

Y-DISP. MODE 199
Y-DISP. MODE 190
Y-DISP. MODE 300
Y-DISP. MODE 437
Y-DISP. MODE 581
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50

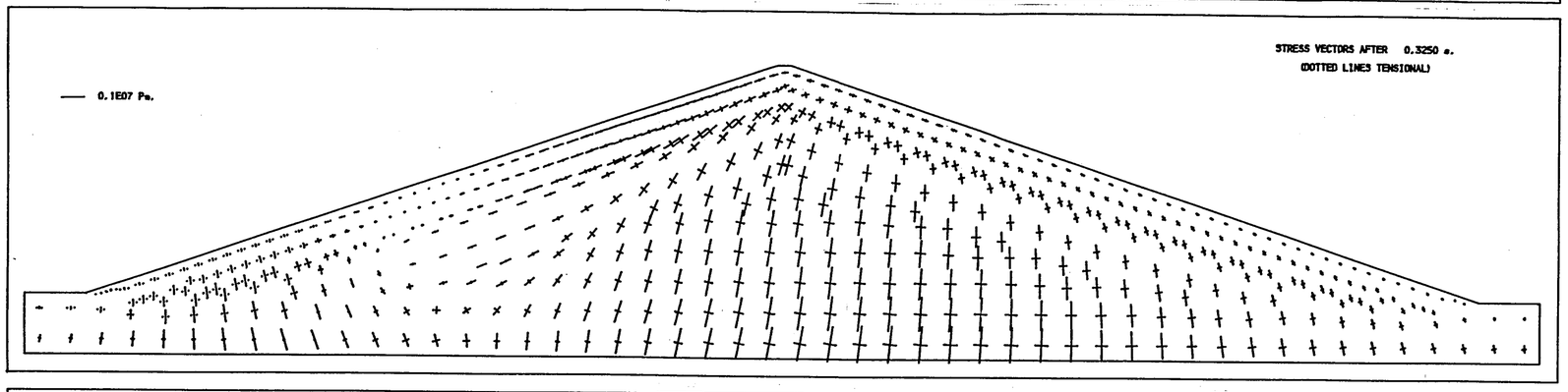

Y-DISP. MODE 691
Y-DISP. MODE 723
Y-DISP. MODE 873
Y-DISP. MODE 947
Y-DISP. MODE 1077
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50

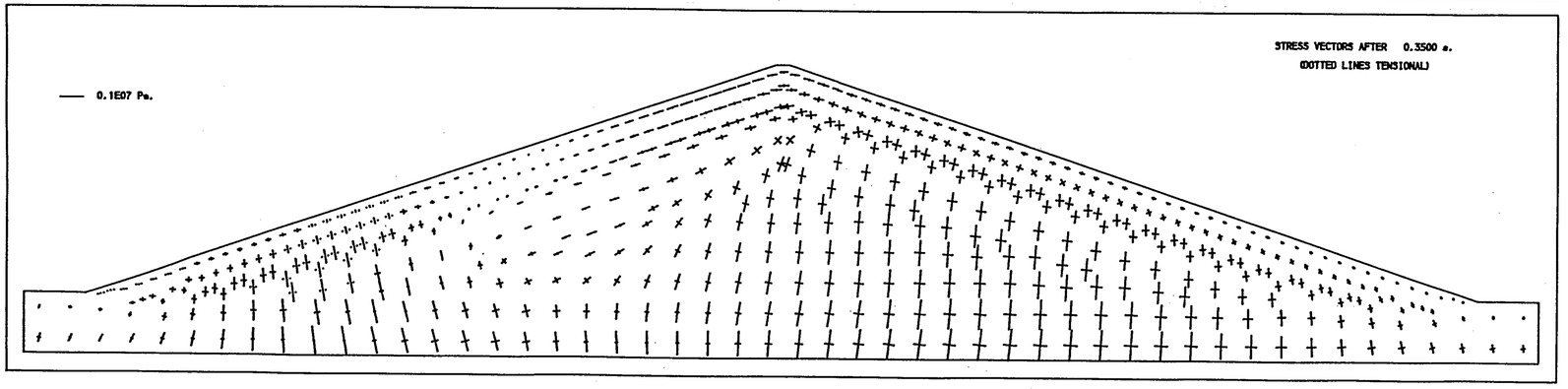

STRESS VECTORS AFTER 0.2250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

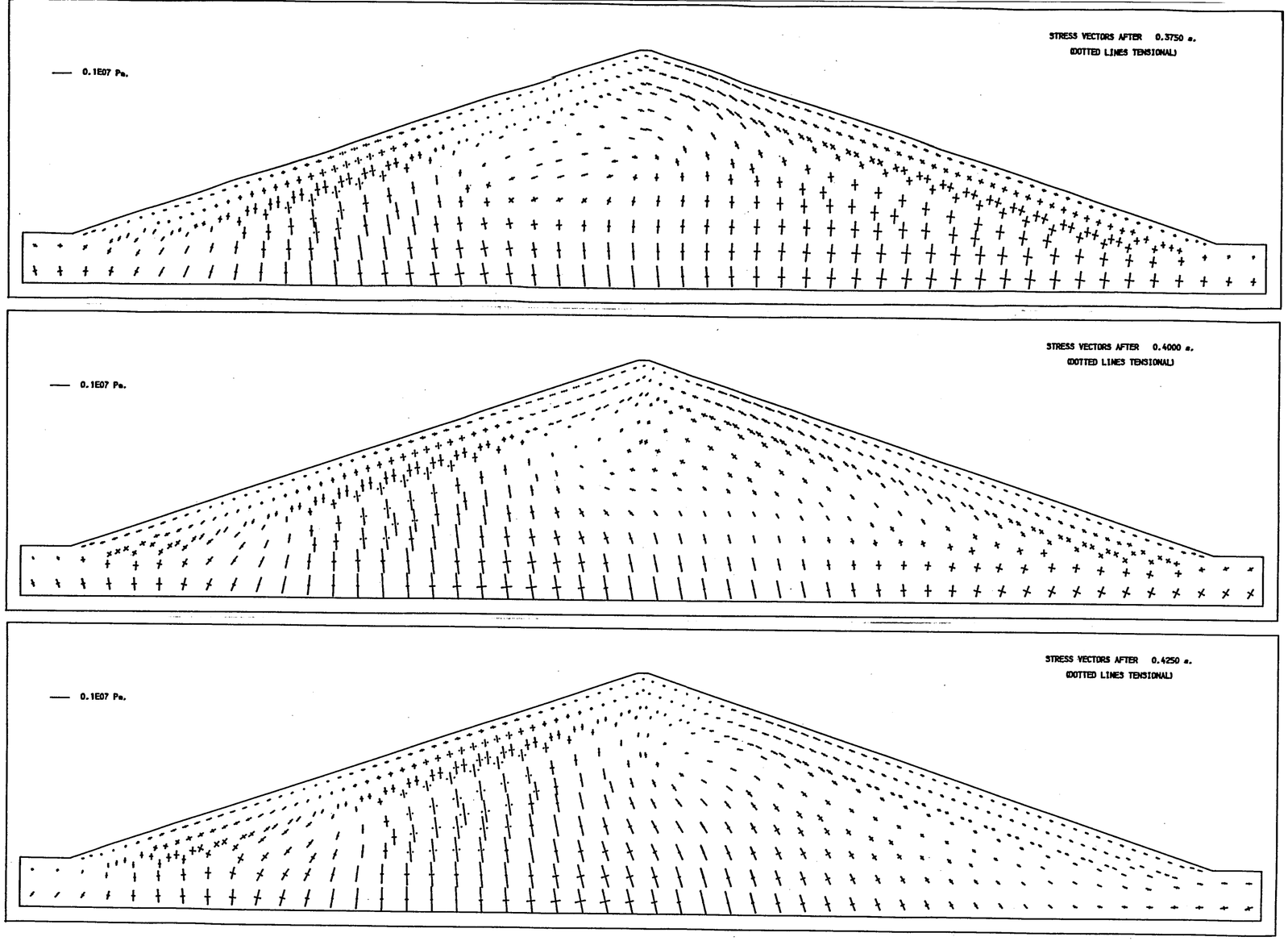

STRESS VECTORS AFTER 0.2500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

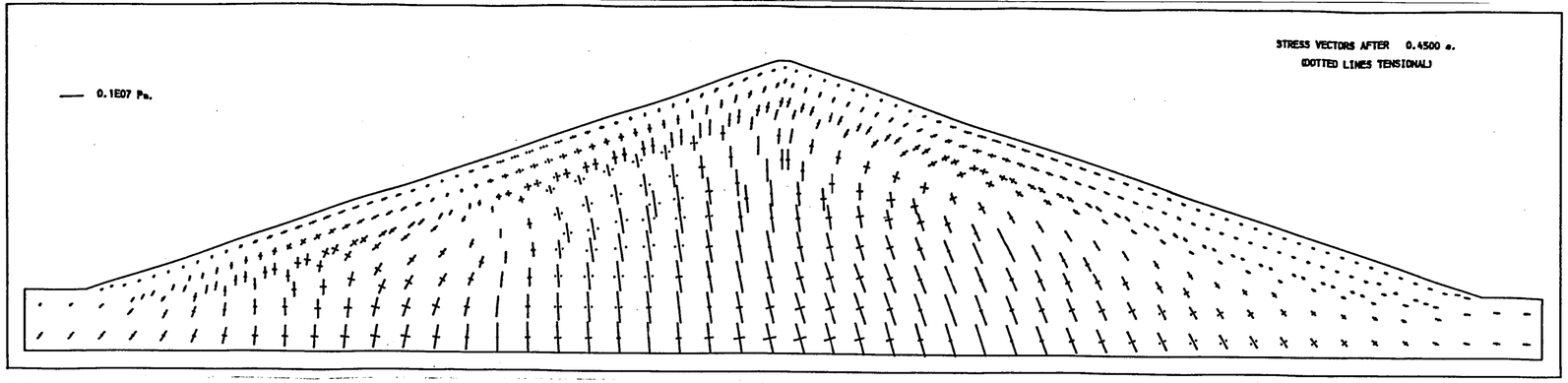

STRESS VECTORS AFTER 0.2750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

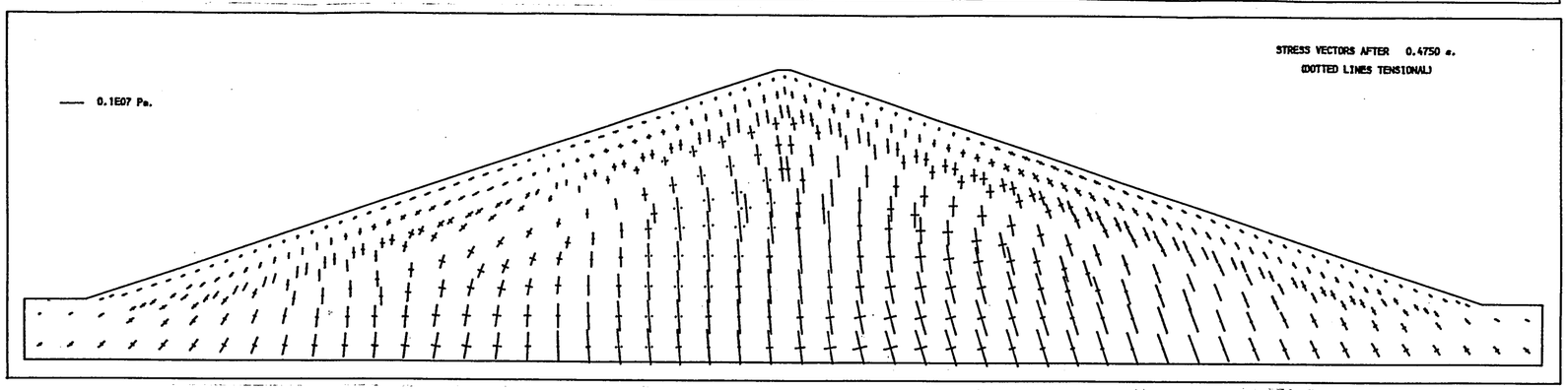

STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

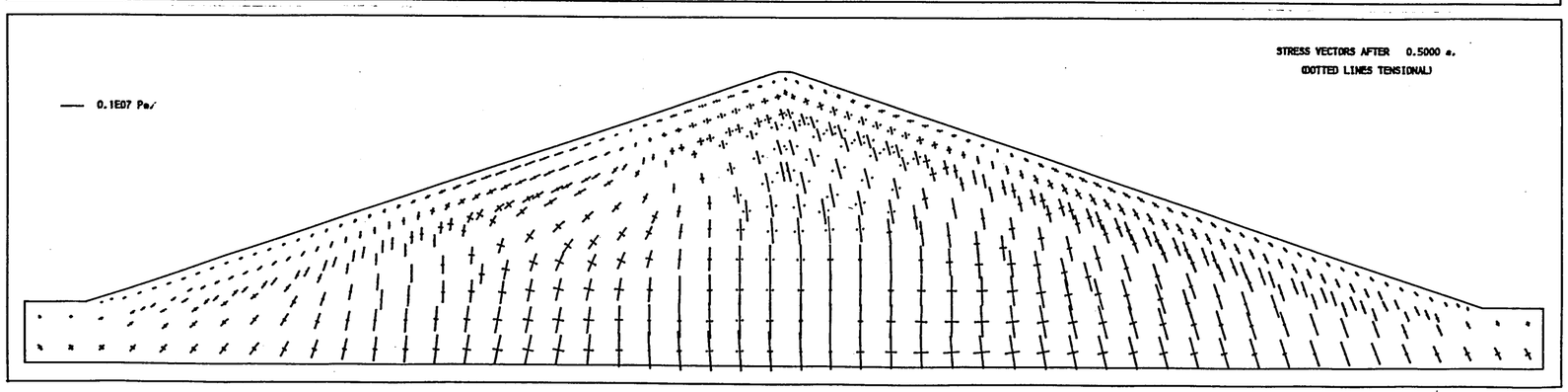

STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.4250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.4500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.4750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa

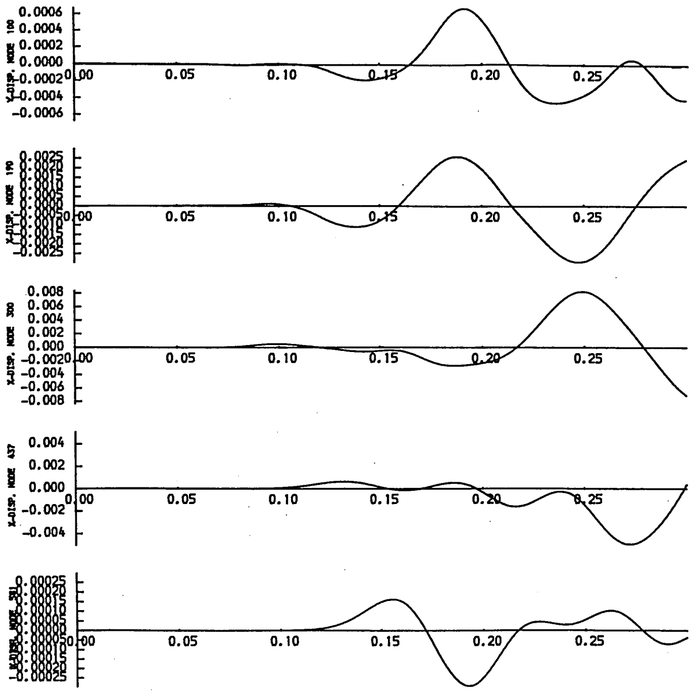
Time-displacement graphs and stress distributions for D2/1

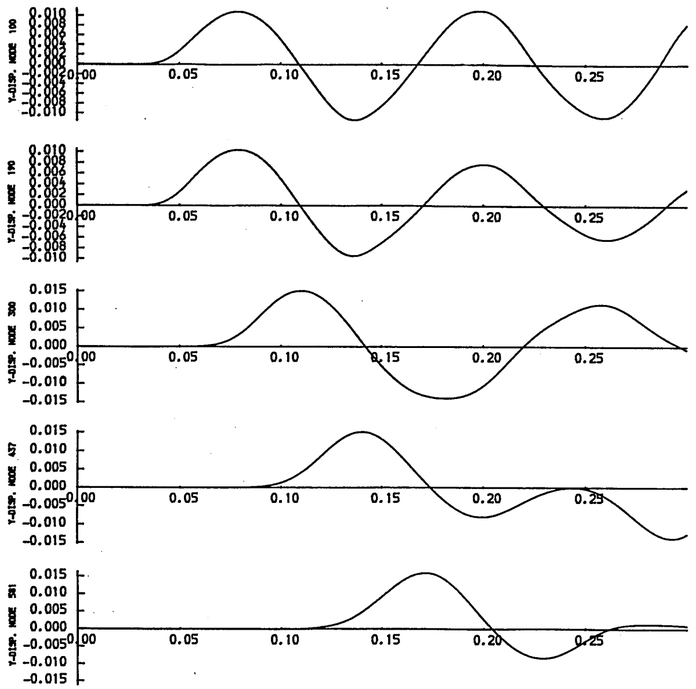
P-wave

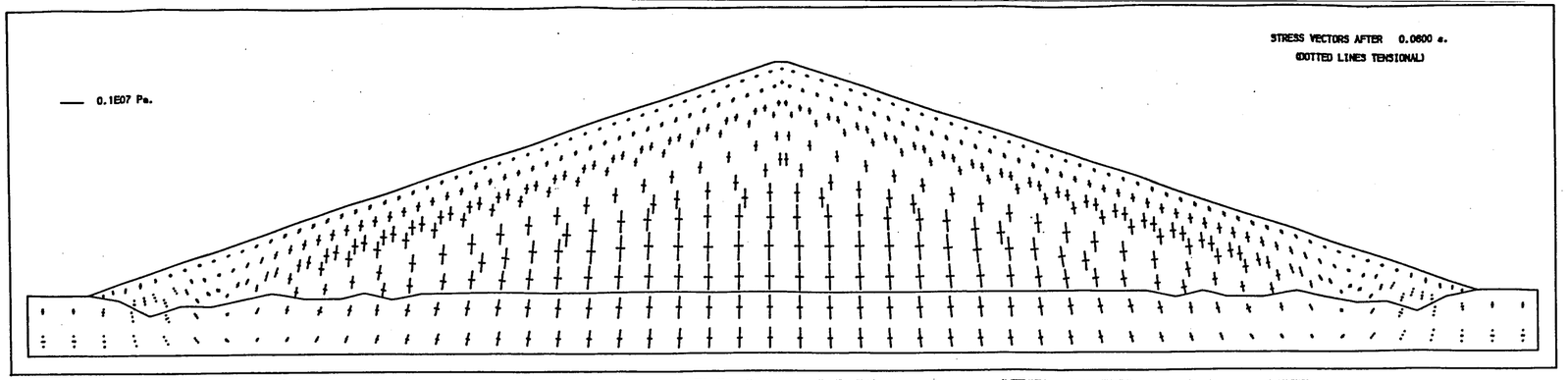
Angle of incidence 0^{o}

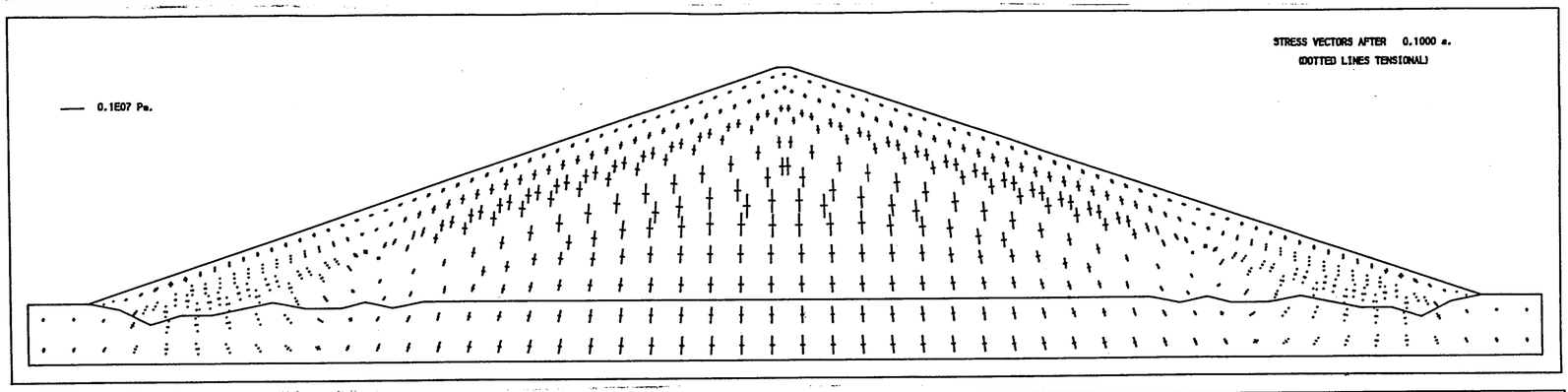
Base acceleration g

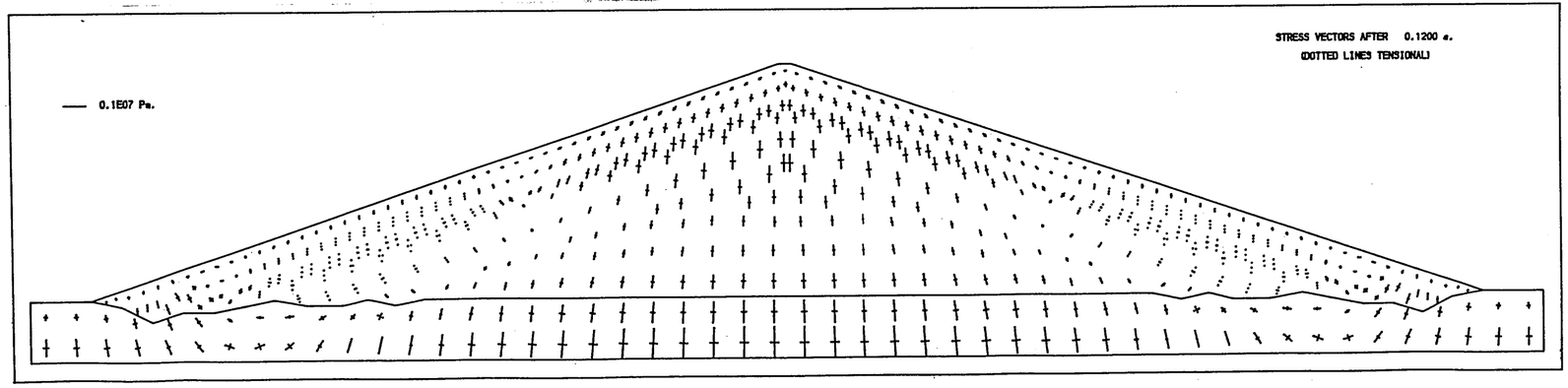
D2/1 : P; 0; g

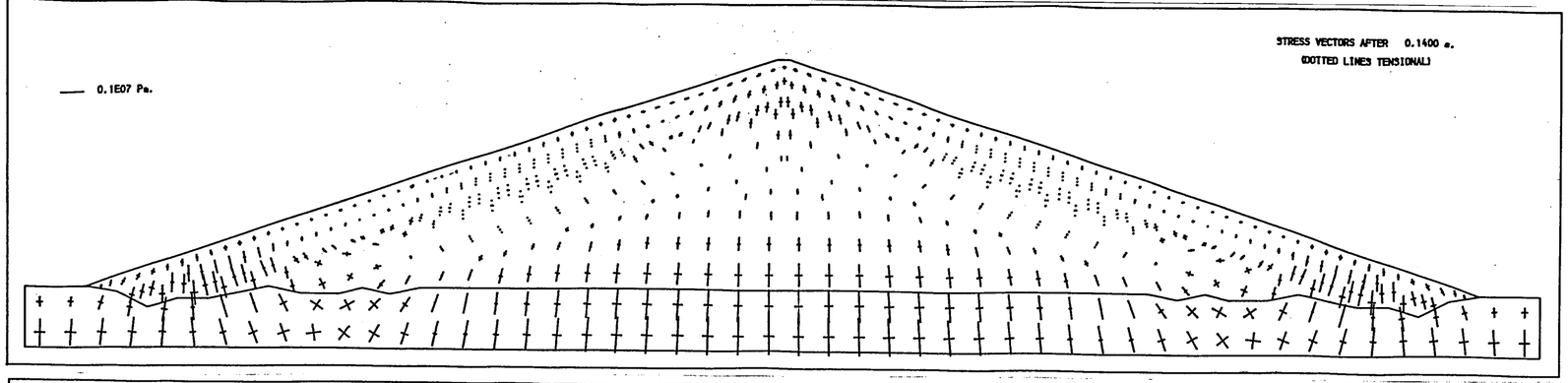

Y-DISP, MODE 100
0.0006
0.0004
0.0002
0.0000
-0.0002
-0.0004
-0.0006
Y-DISP, MODE 190
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
-0.0005
-0.0010
-0.0015
-0.0020
-0.0025
X-DISP, MODE 300
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
X-DISP, MODE 437
0.004
0.002
0.000
-0.002
-0.004
X-DISP, MODE 581
0.00025
0.00020
0.00015
0.00010
0.00005
0.00000
-0.00005
-0.00010
-0.00015
-0.00020
-0.00025
0.00
0.05
0.10
0.15
0.20
0.25

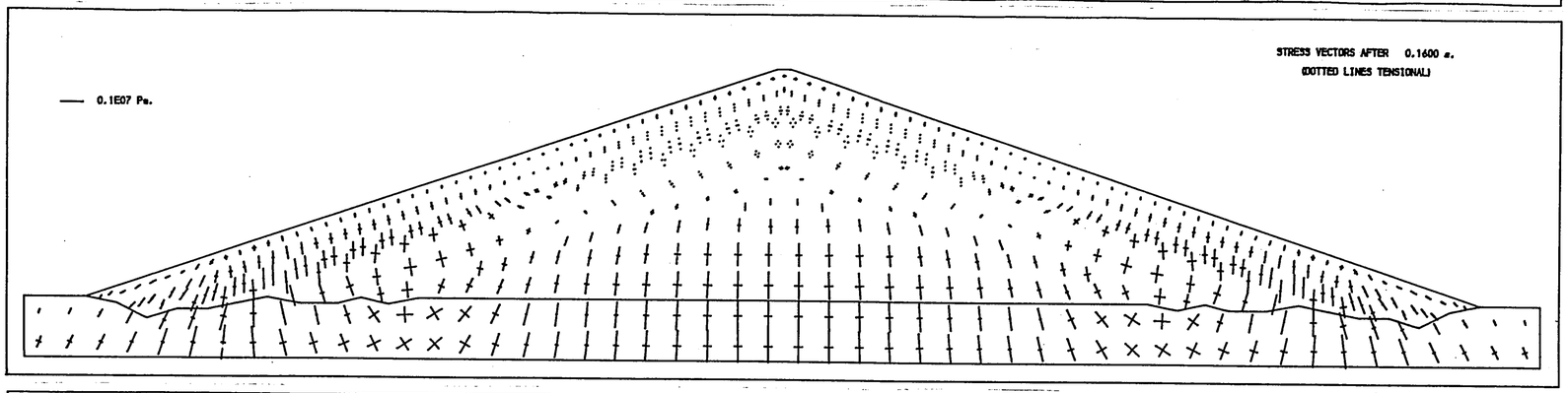

Y-DISP, MODE 100
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
-0.010
Y-DISP, MODE 190
0.010
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
-0.010
Y-DISP, MODE 300
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
Y-DISP, MODE 437
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
Y-DISP, MODE 581
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
0.00
0.05
0.10
0.15
0.20
0.25

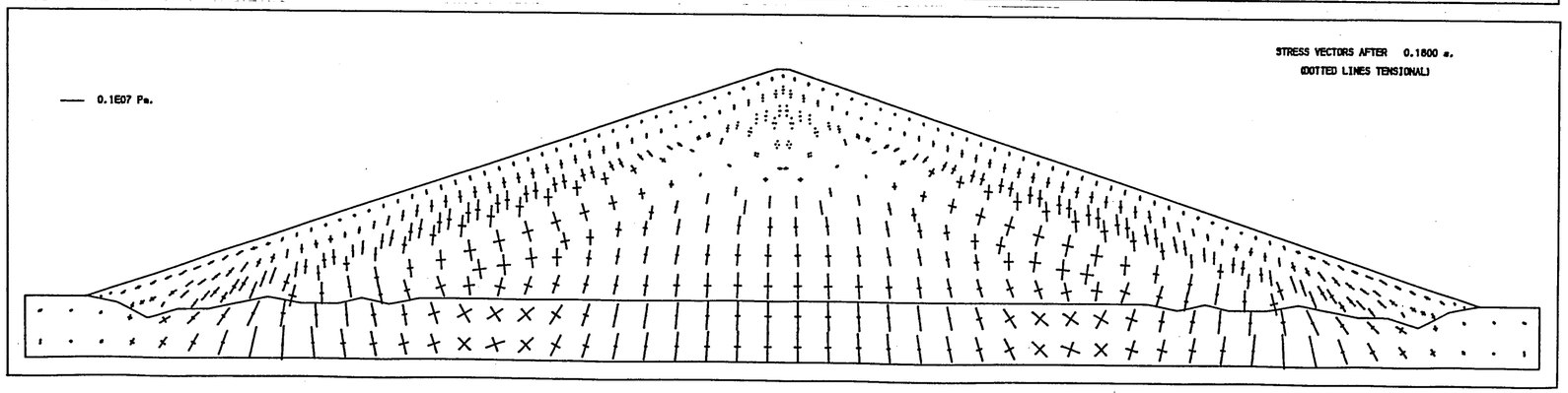

STRESS VECTORS AFTER 0.0600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

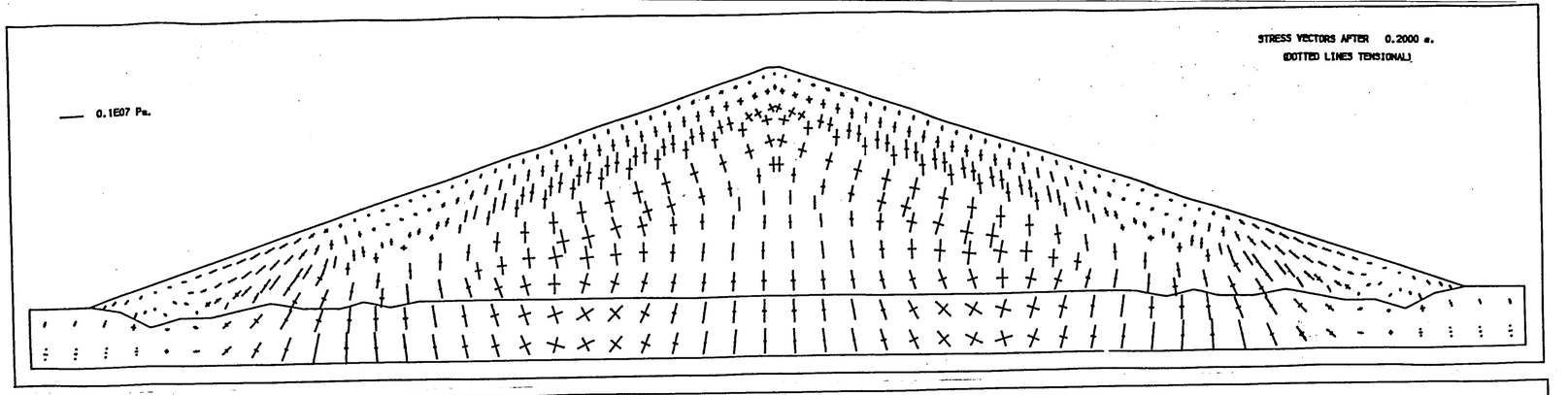

STRESS VECTORS AFTER 0.1000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

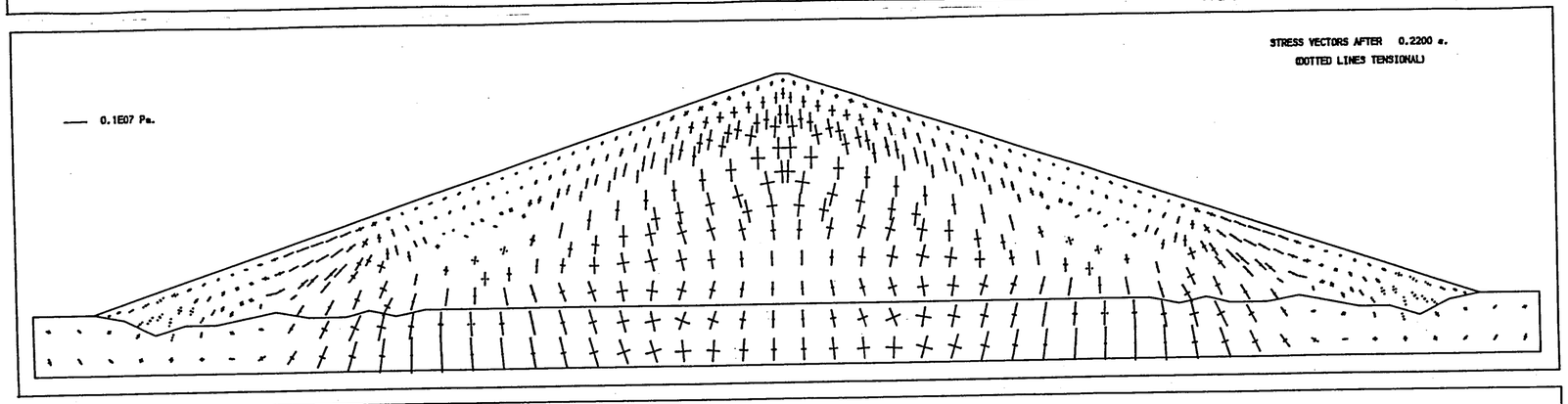

STRESS VECTORS AFTER 0.1200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

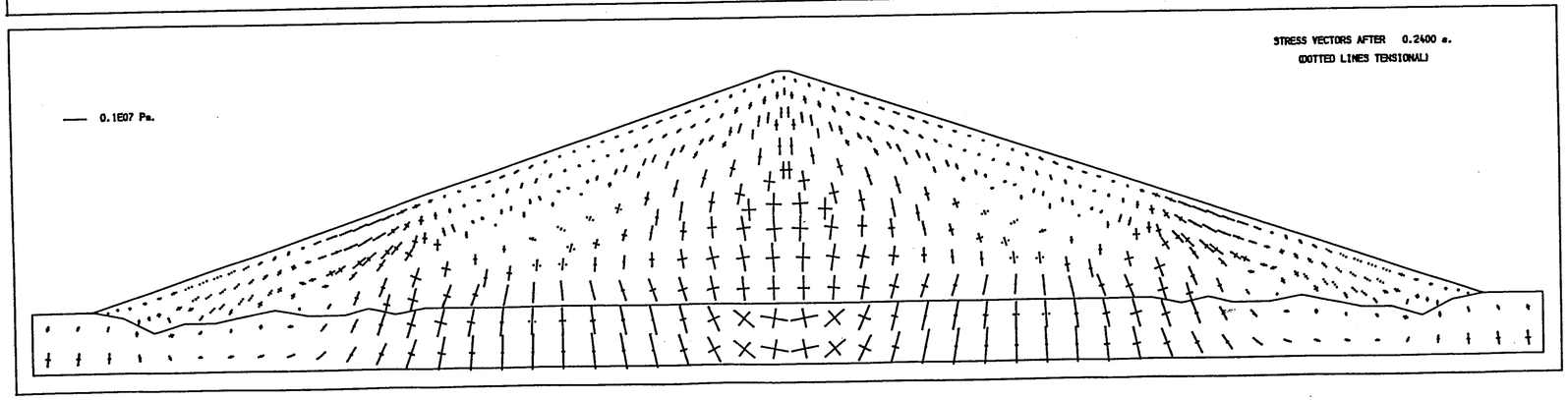

STRESS VECTORS AFTER 0.1400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

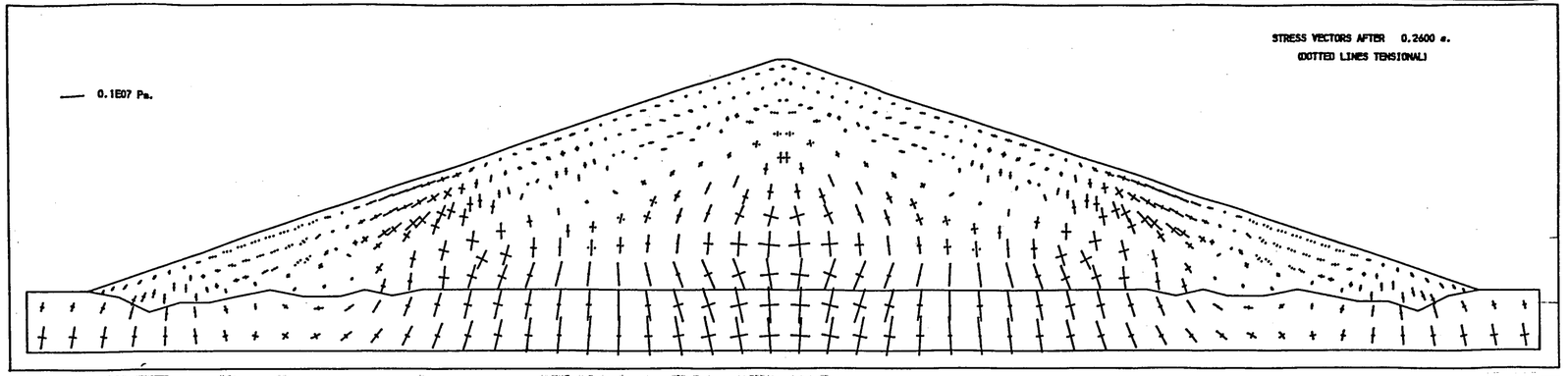

STRESS VECTORS AFTER 0.1600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

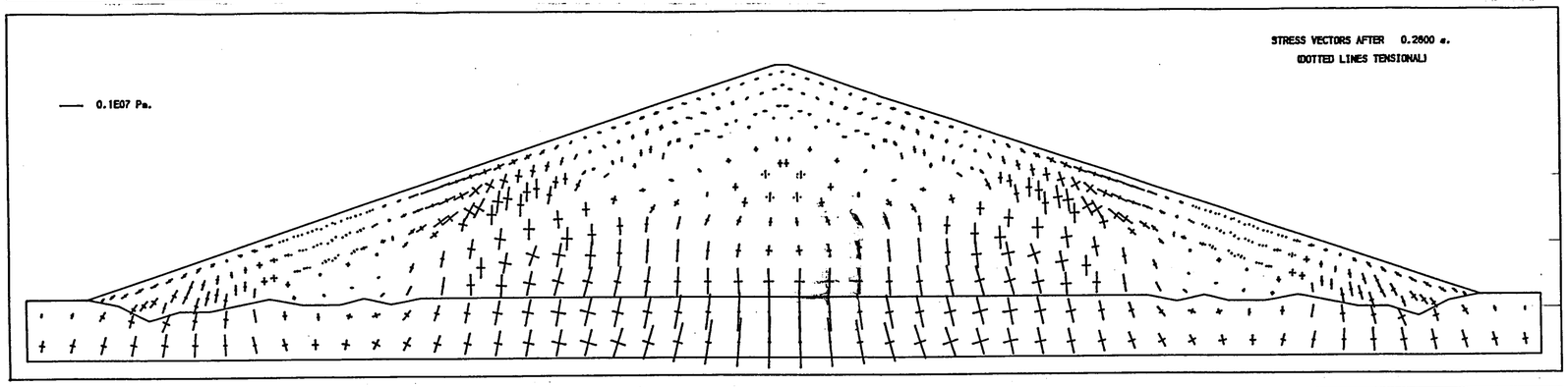

STRESS VECTORS AFTER 0.1800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

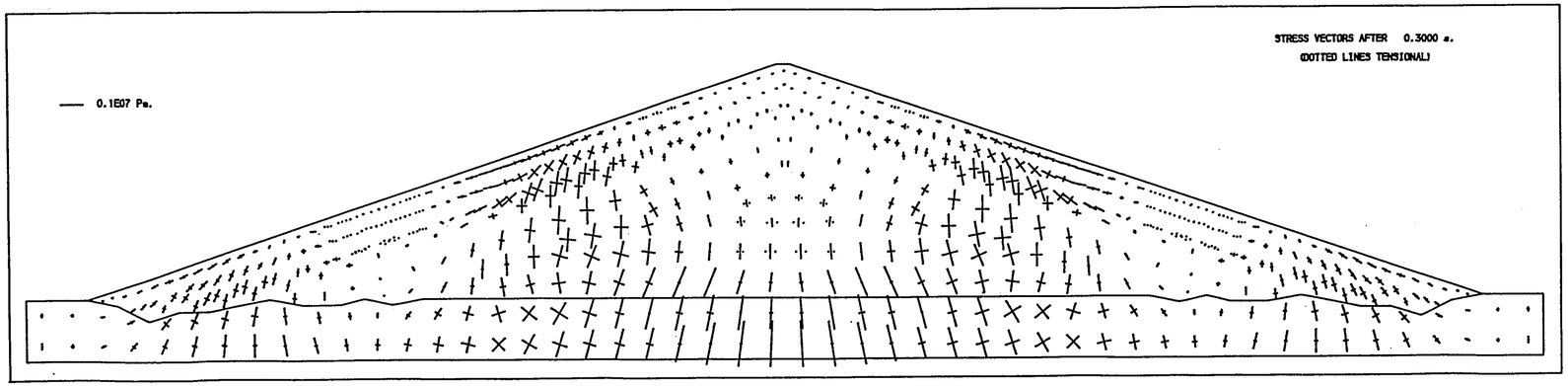

STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

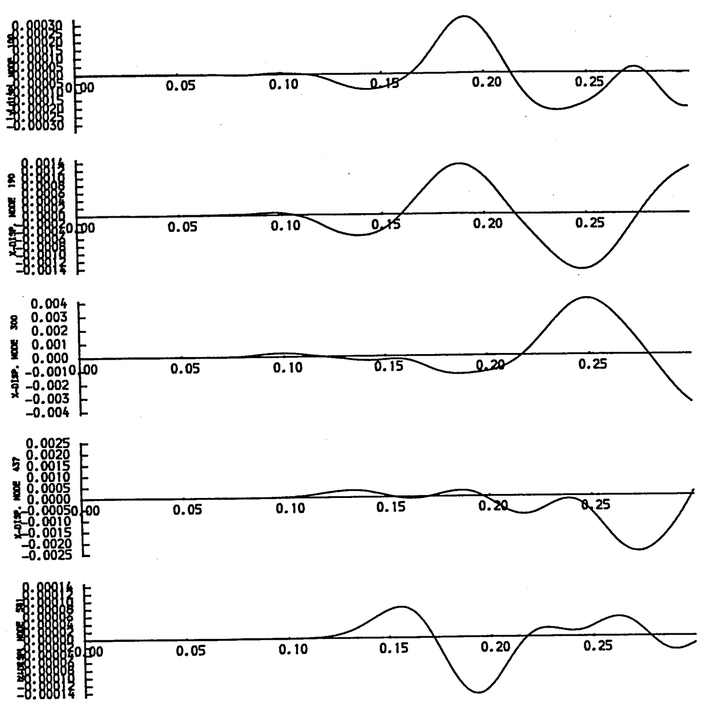

STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

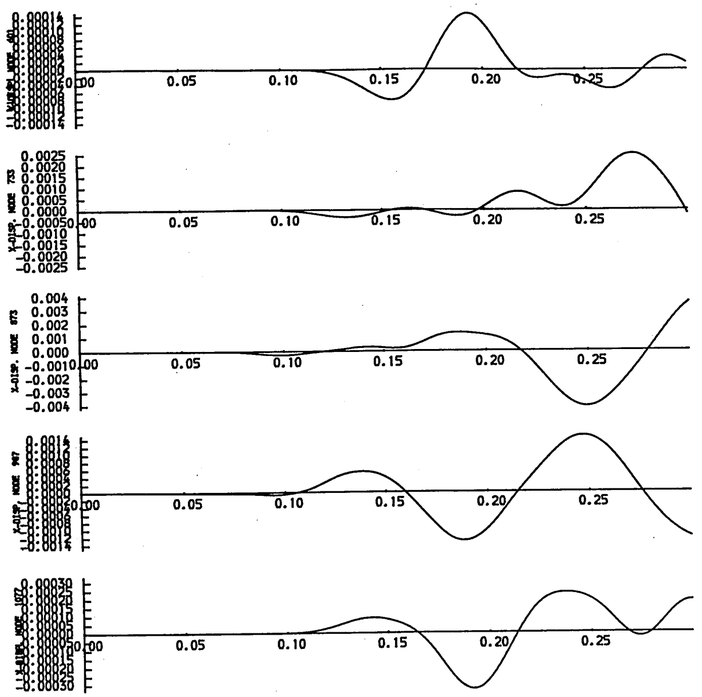
Time-displacement graphs and stress distributions for D2/2

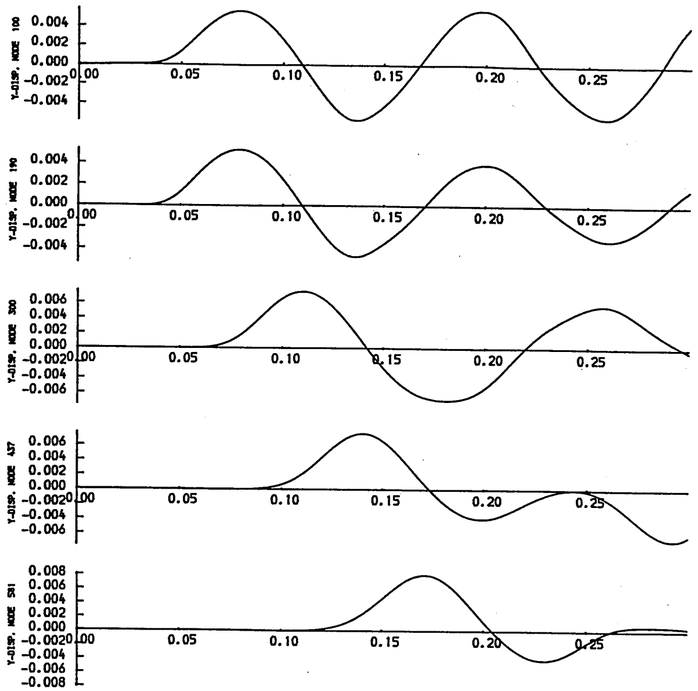
P-wave

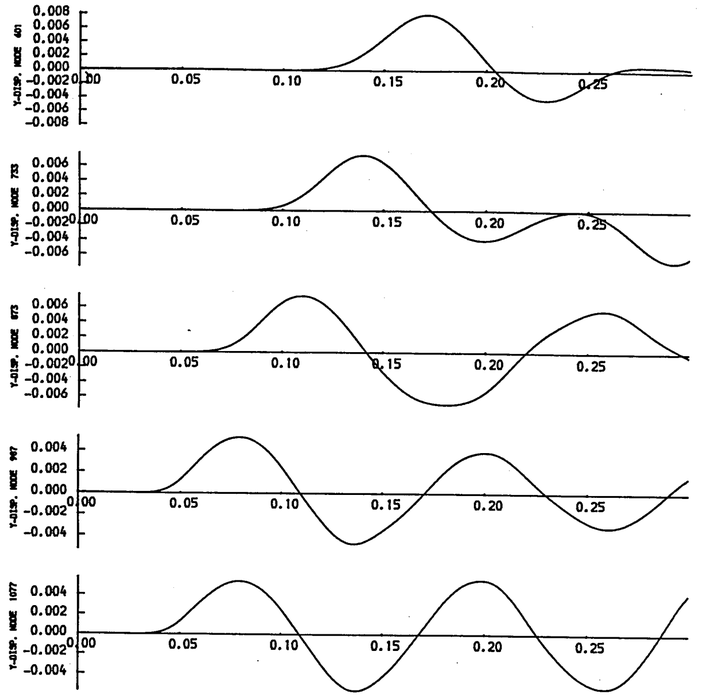
Angle of incidence 0^{o}

Base acceleration $\frac{1}{2}g$

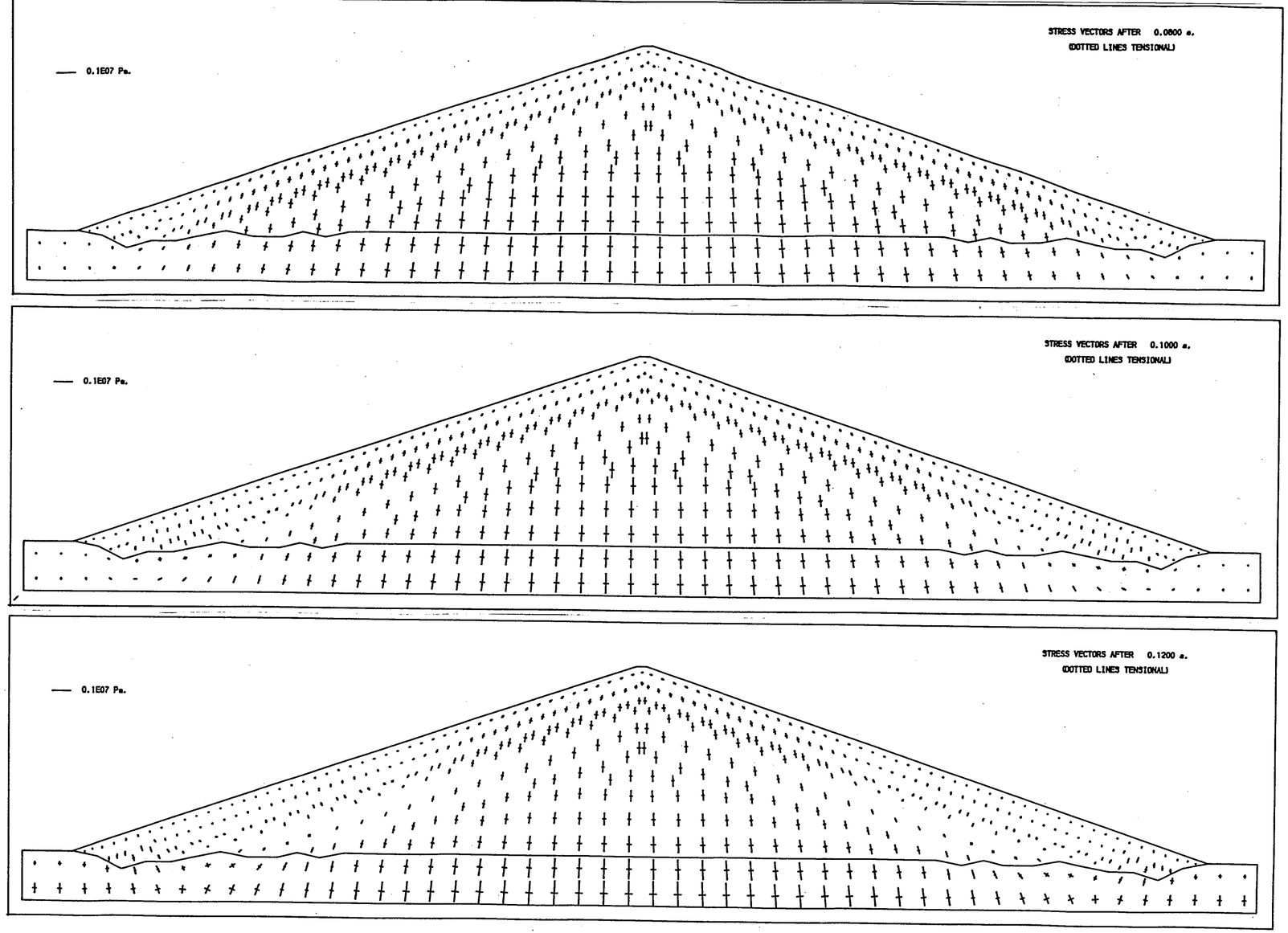

0.00
0.05
0.10
0.15
0.20
0.25

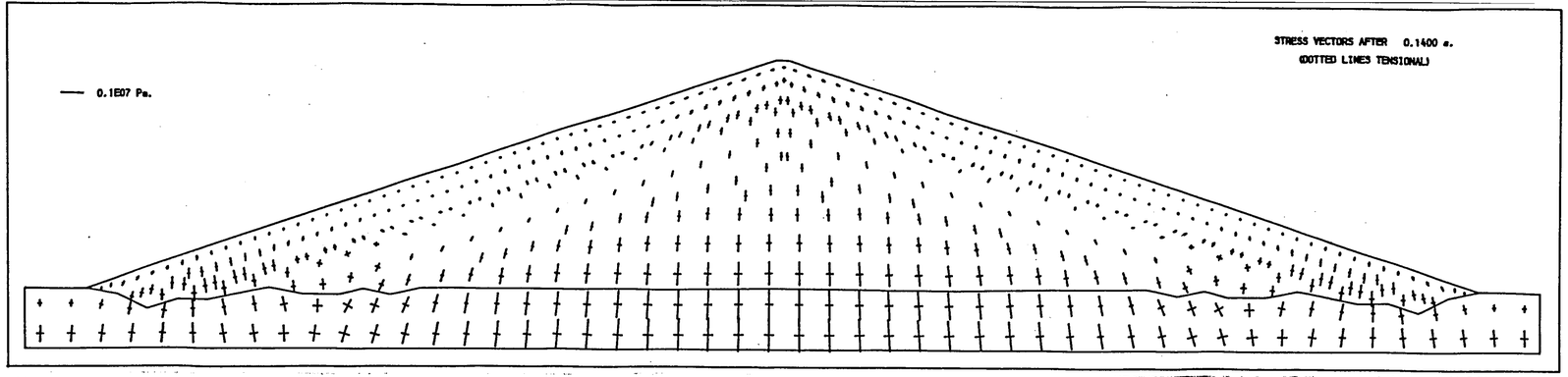

0.00
0.05
0.10
0.15
0.20
0.25

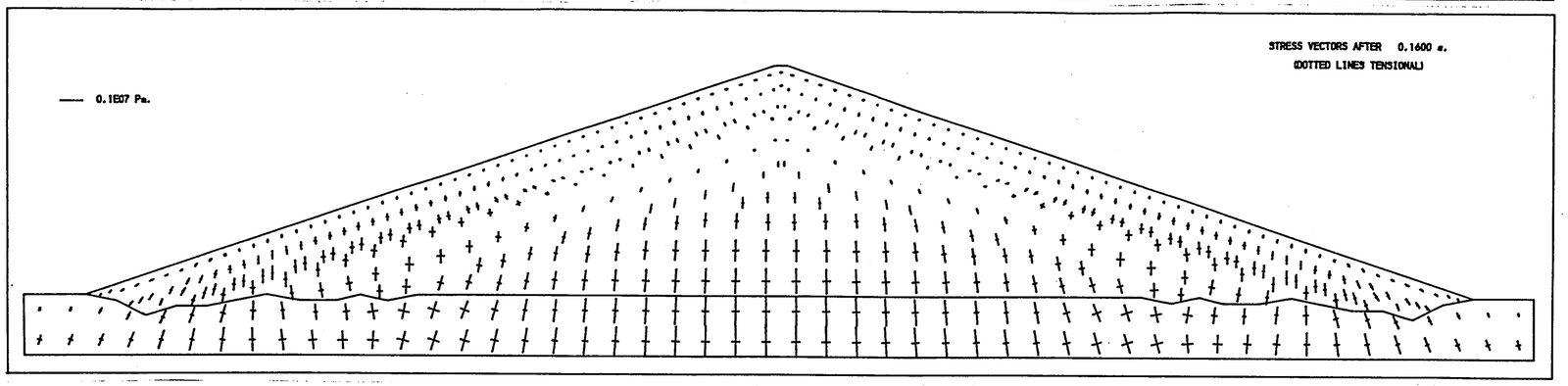


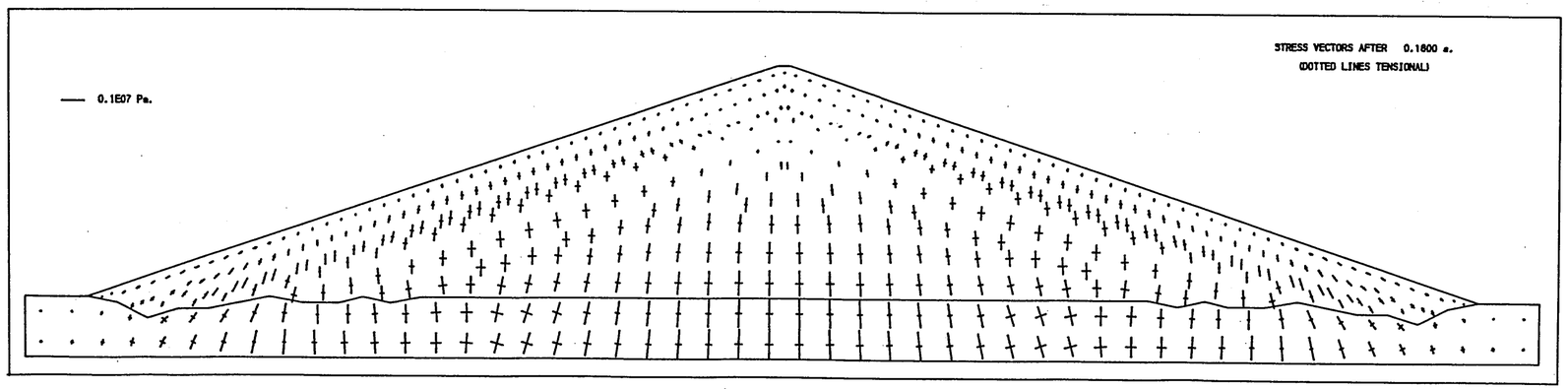


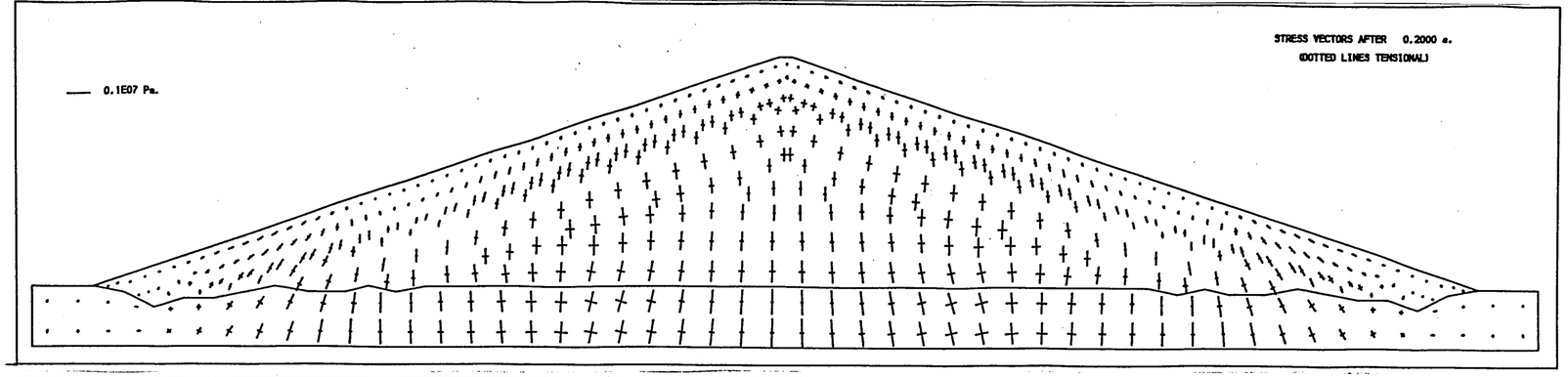
D2/2; P; 0; $\frac{1}{2}$g

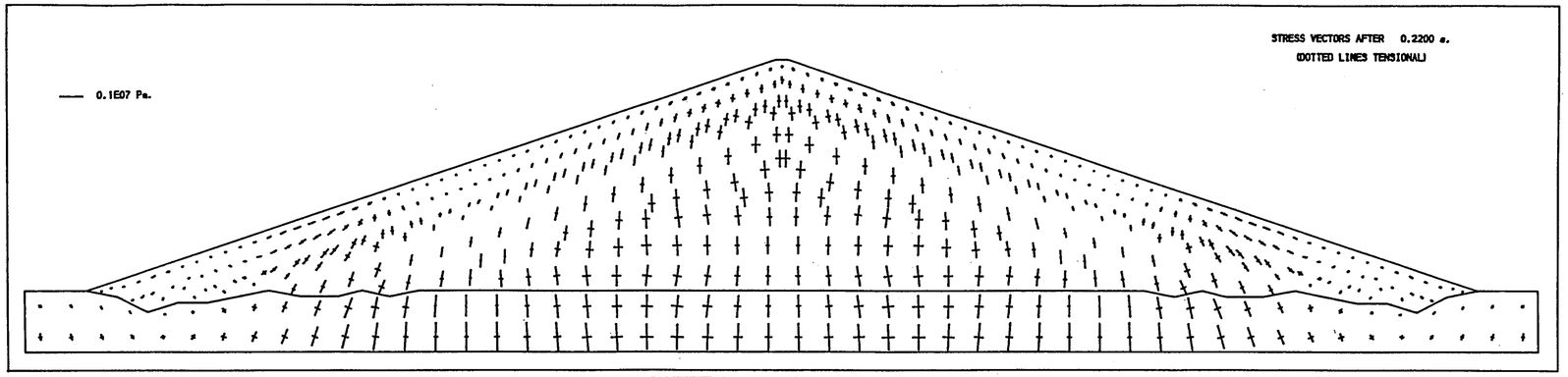

STRESS VECTORS AFTER 0.0800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

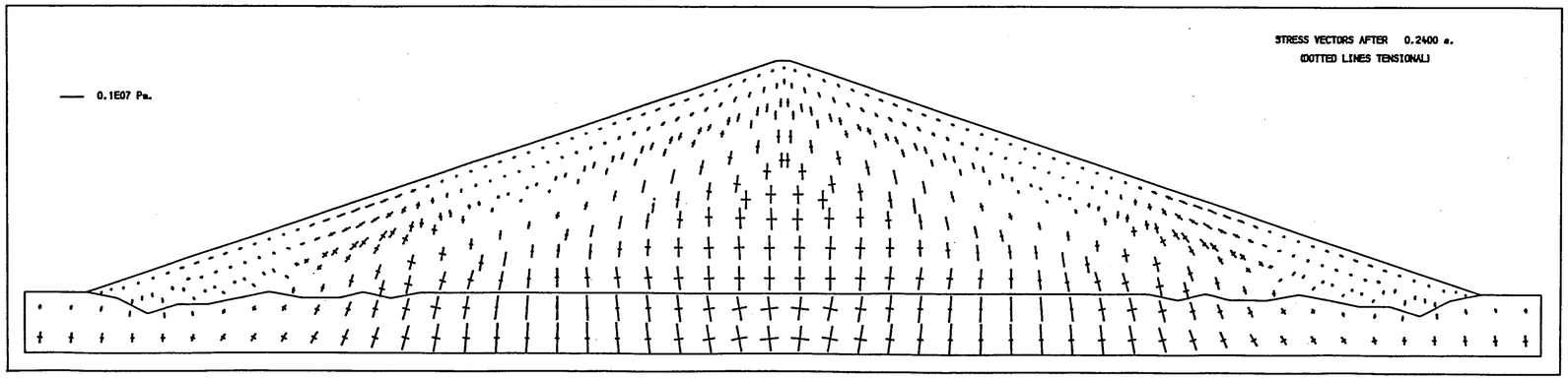

STRESS VECTORS AFTER 0.1400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

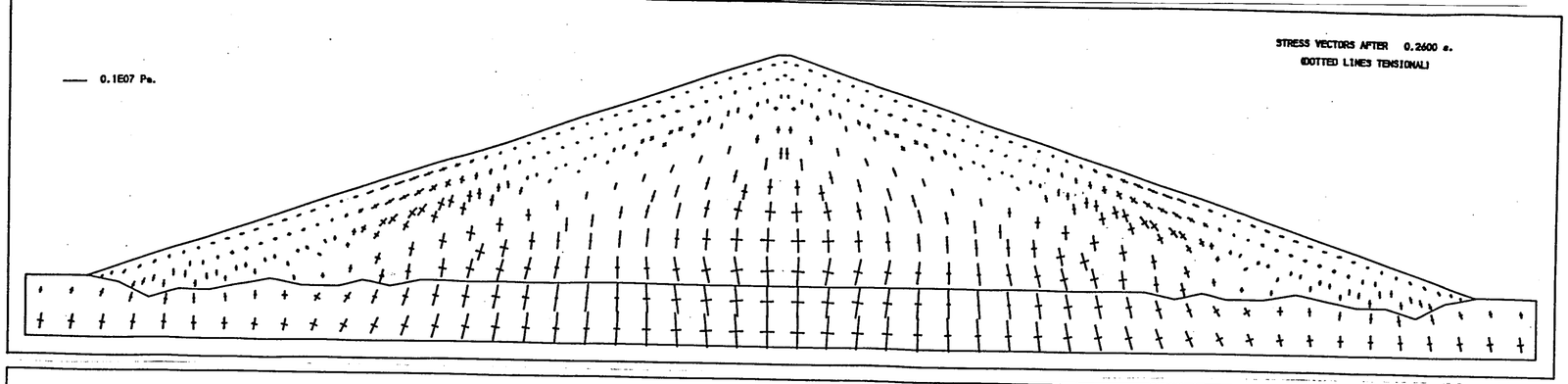

STRESS VECTORS AFTER 0.1600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

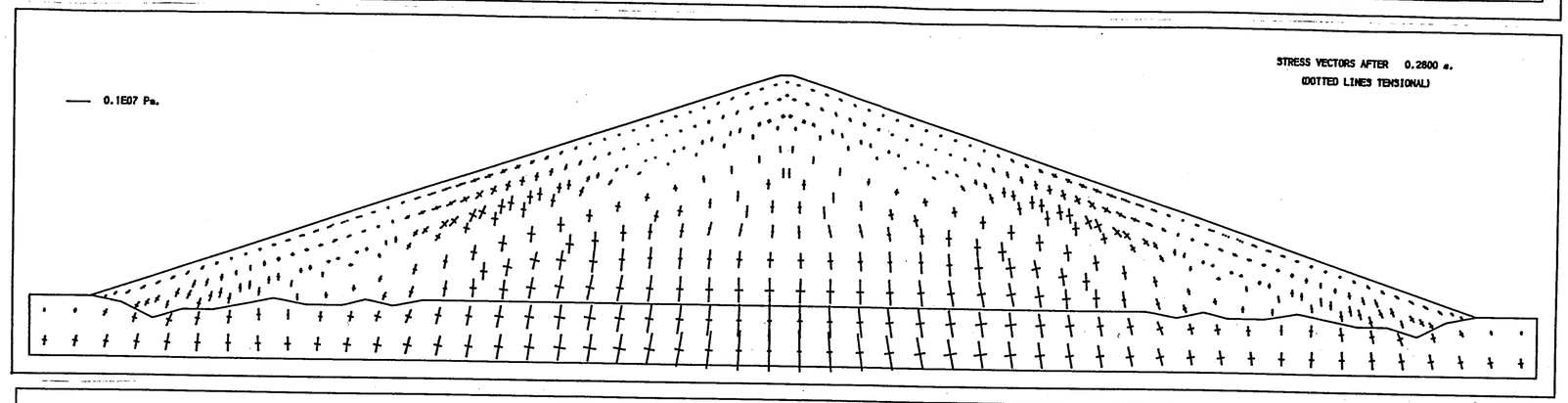

STRESS VECTORS AFTER 0.1800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

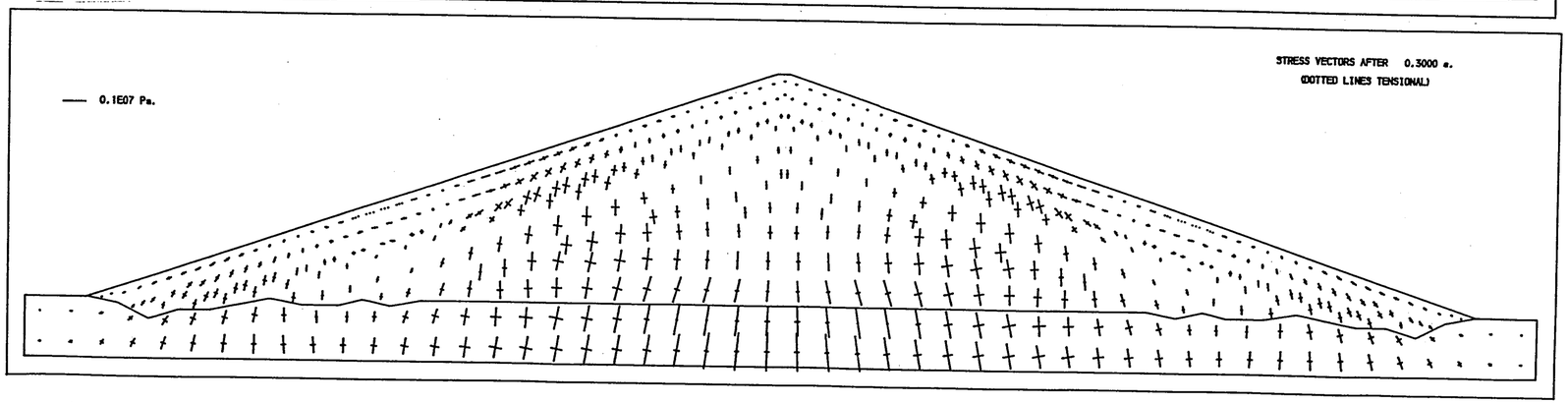

STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

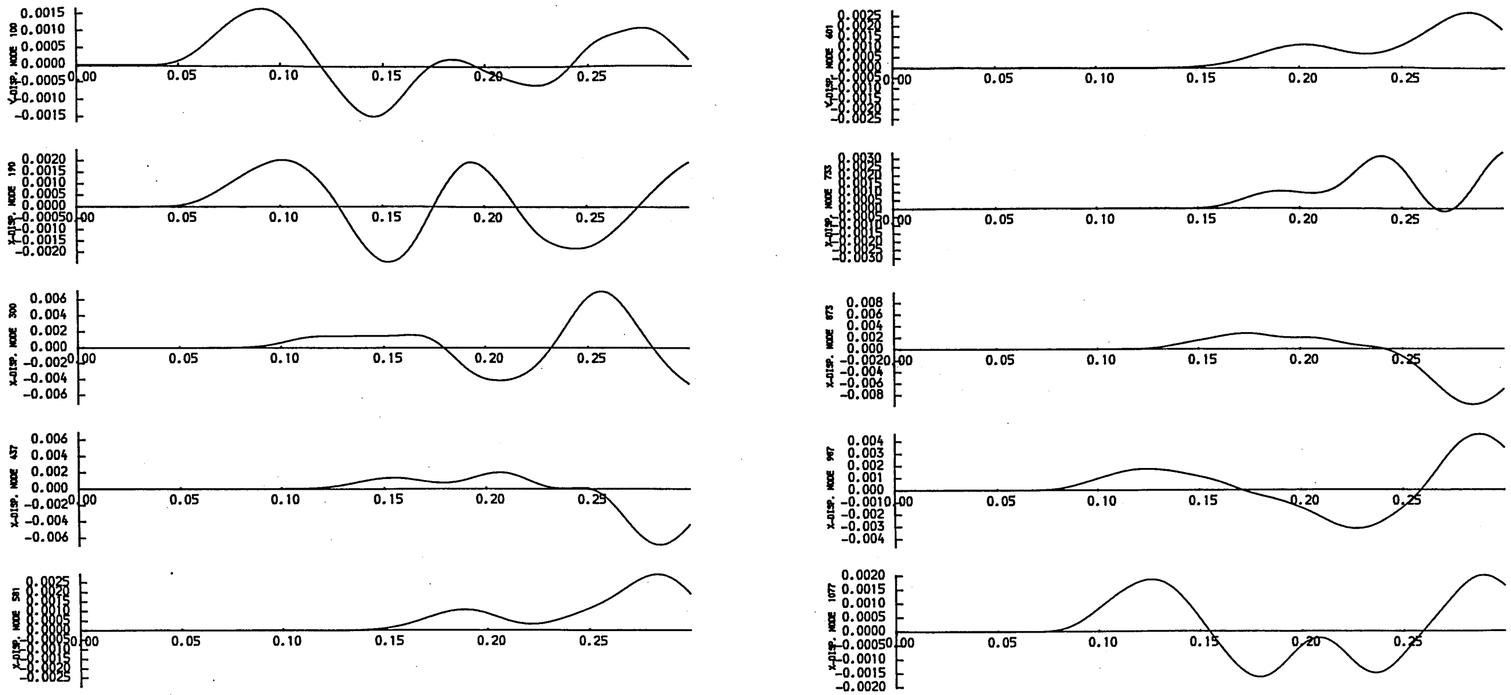

STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

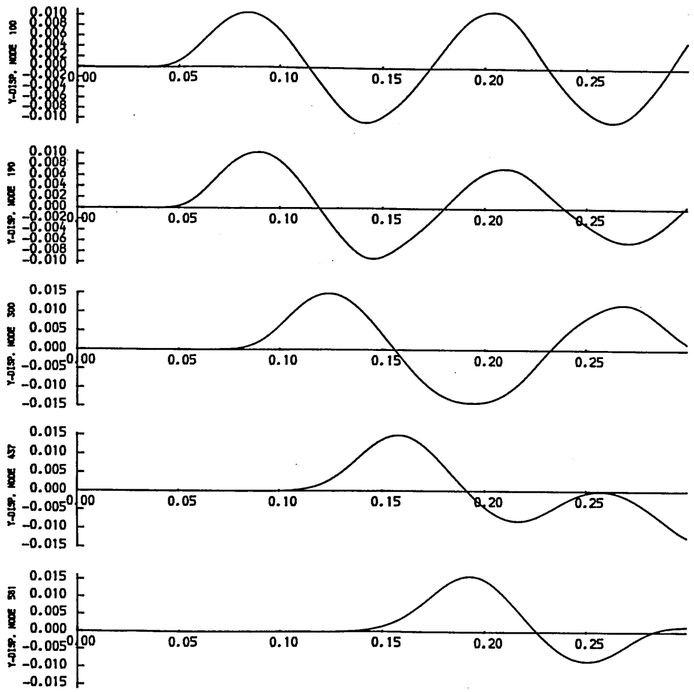
Time-displacement graphs and stress distributions for D2/3

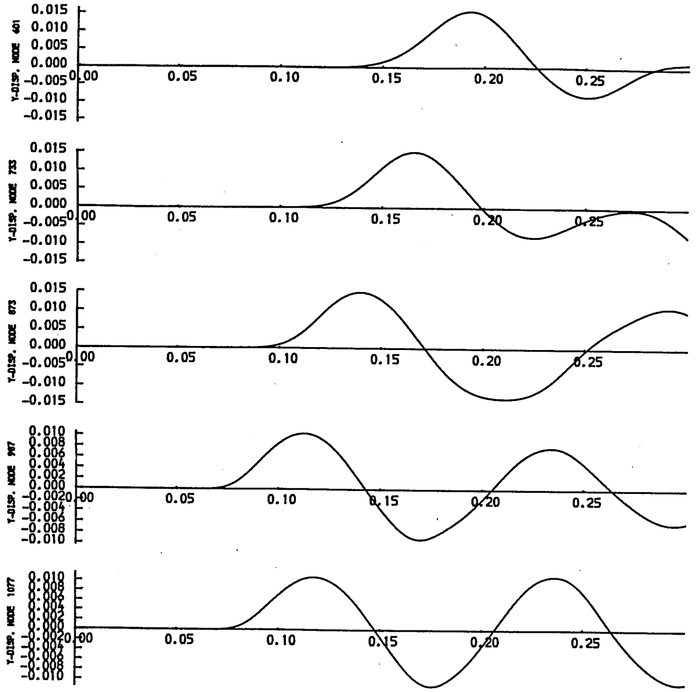
P-wave

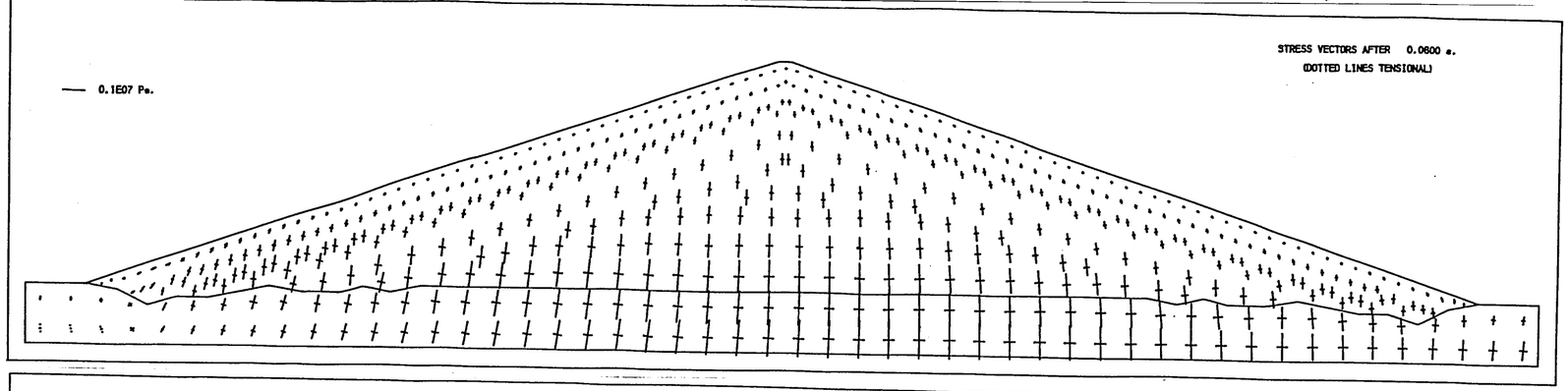
Angle of incidence 10^{o}

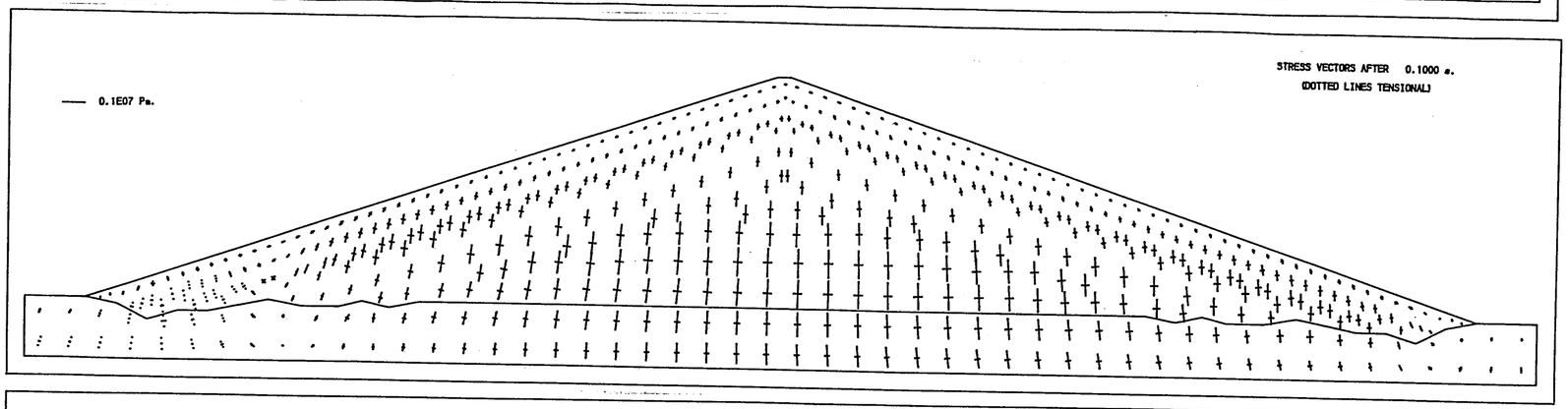
Base acceleration g

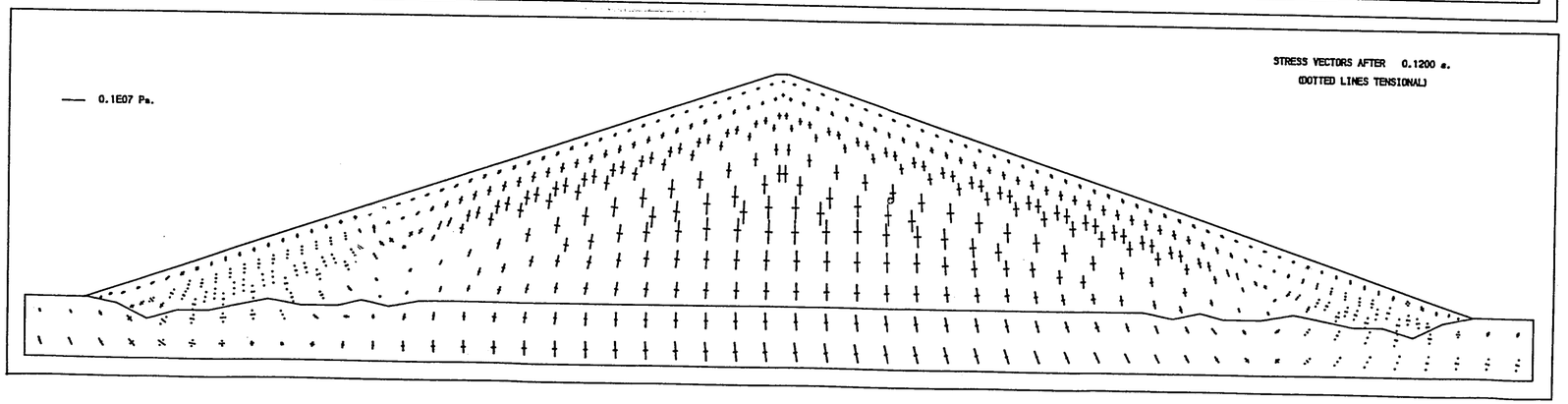

X-DISP. MODE 100
X-DISP. MODE 190
X-DISP. MODE 300
X-DISP. MODE 437
X-DISP. MODE 581
X-DISP. MODE 601
X-DISP. MODE 723
X-DISP. MODE 873
X-DISP. MODE 947
X-DISP. MODE 1077
0.00
0.05
0.10
0.15
0.20
0.25

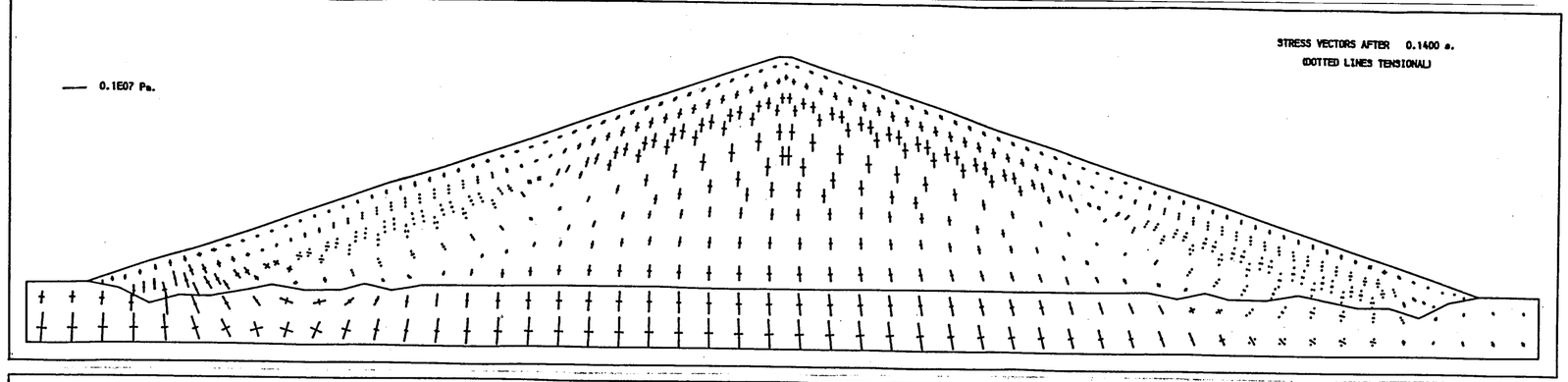

Y-DISP. MODE 100
Y-DISP. MODE 199
Y-DISP. MODE 300
Y-DISP. MODE 437
Y-DISP. MODE 581
0.00
0.05
0.10
0.15
0.20
0.25

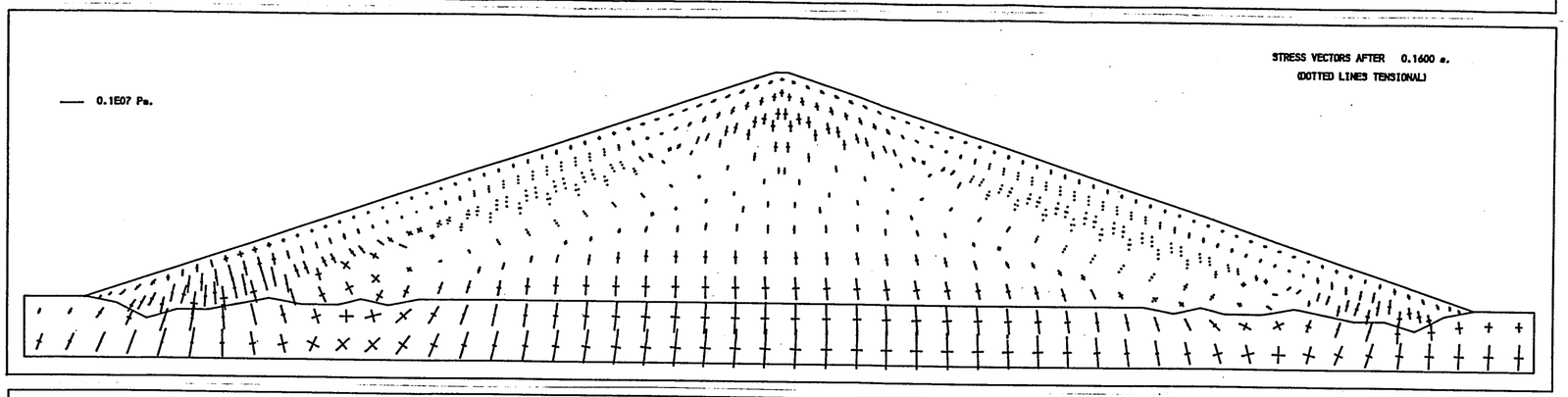

Y-DISP. MODE 401
Y-DISP. MODE 733
Y-DISP. MODE 873
Y-DISP. MODE 947
Y-DISP. MODE 1077
0.00
0.05
0.10
0.15
0.20
0.25

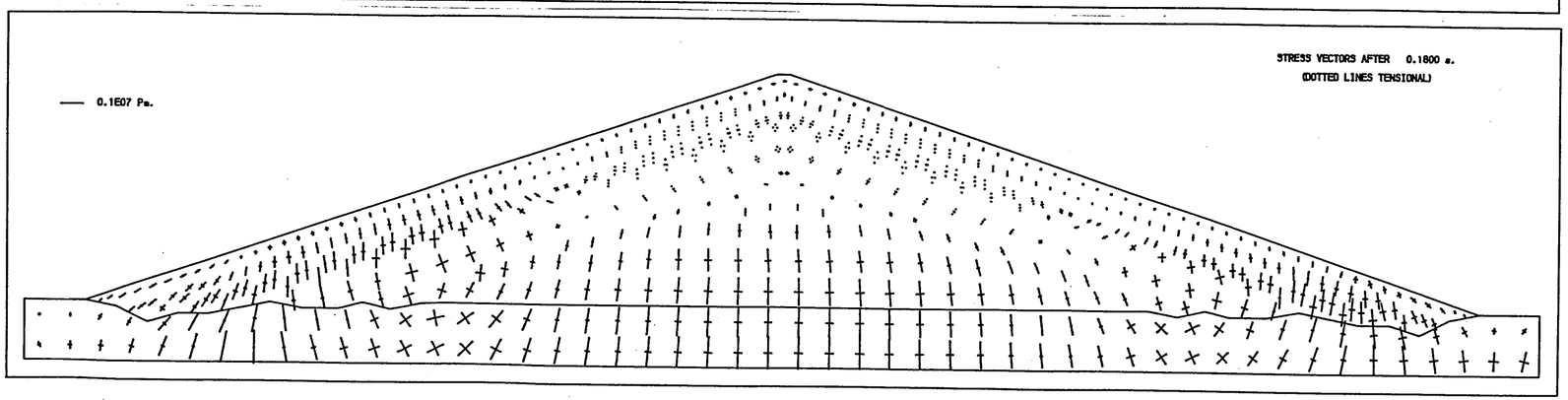

STRESS VECTORS AFTER 0.0600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

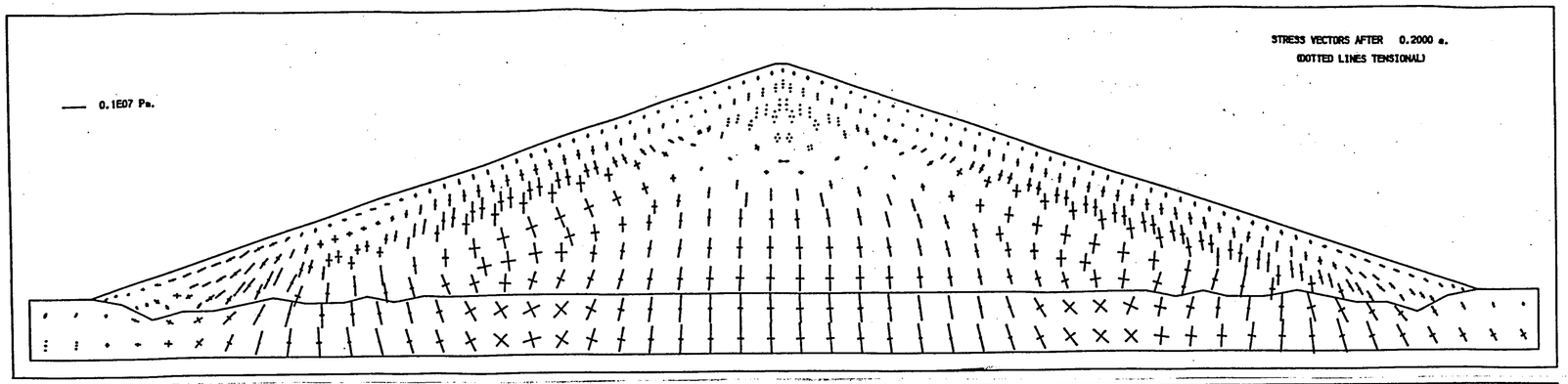

STRESS VECTORS AFTER 0.1000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

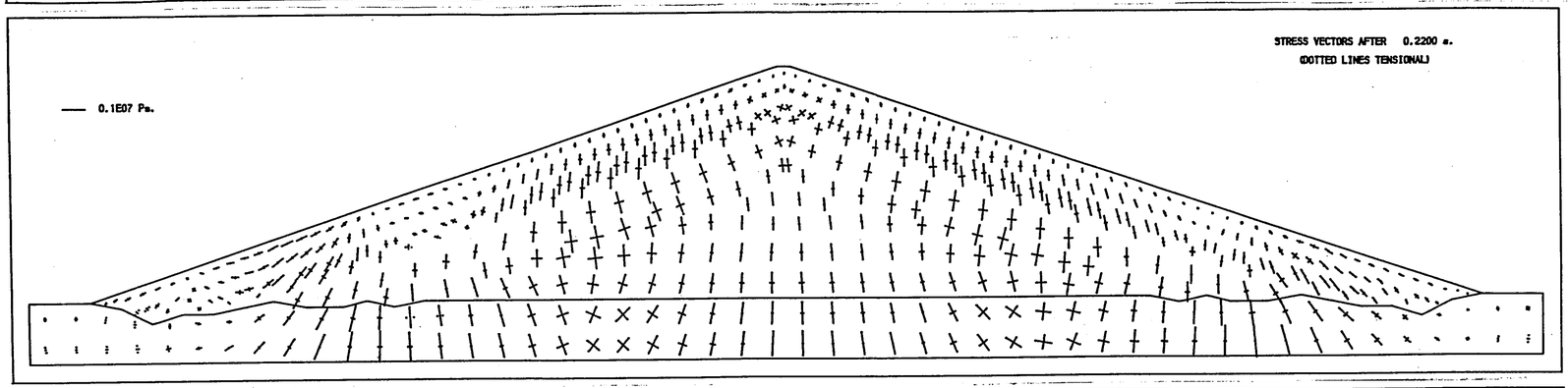

STRESS VECTORS AFTER 0.1200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

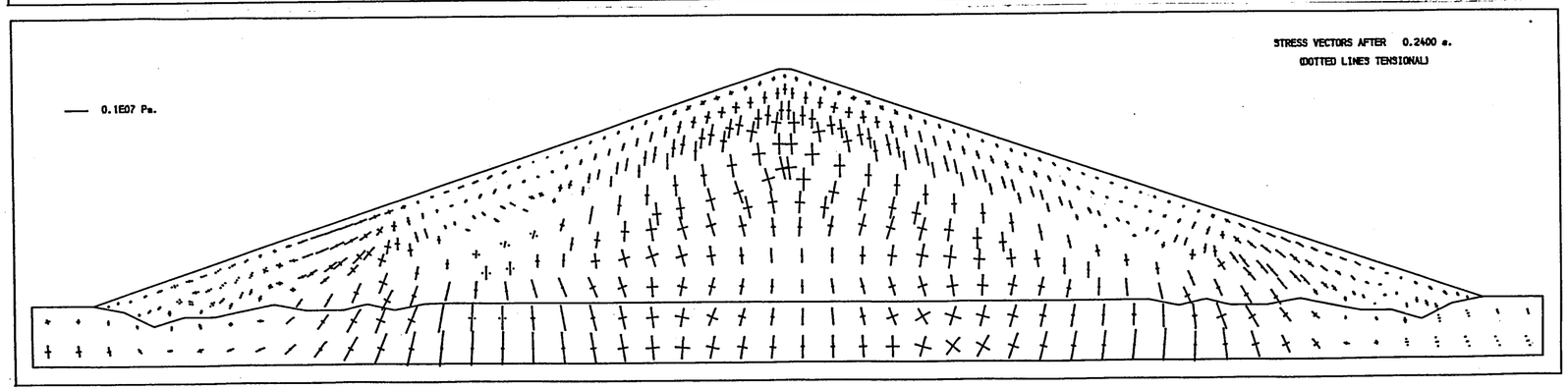

STRESS VECTORS AFTER 0.1400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

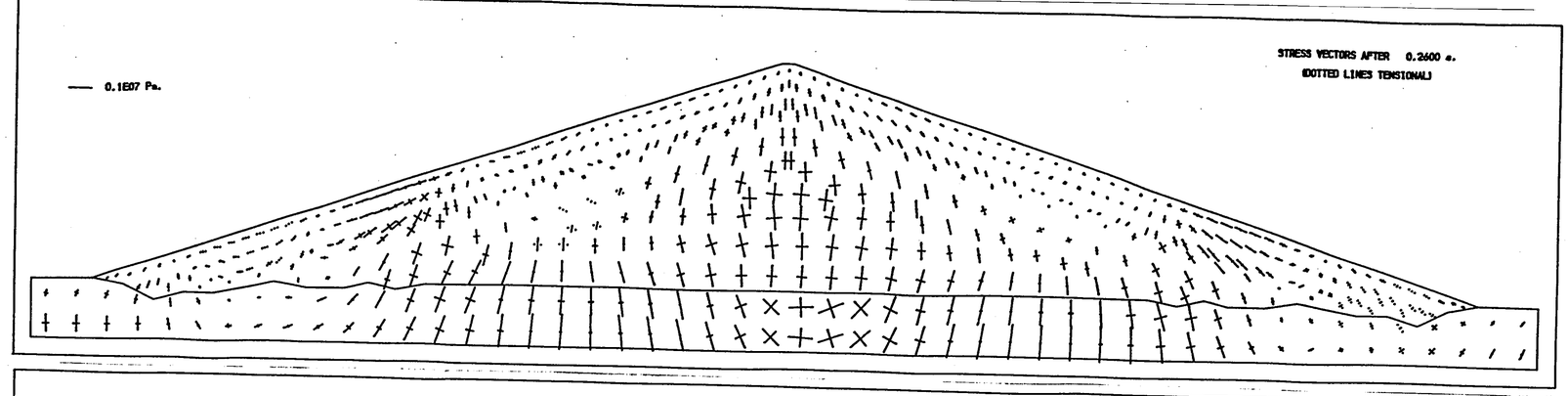

STRESS VECTORS AFTER 0.1600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

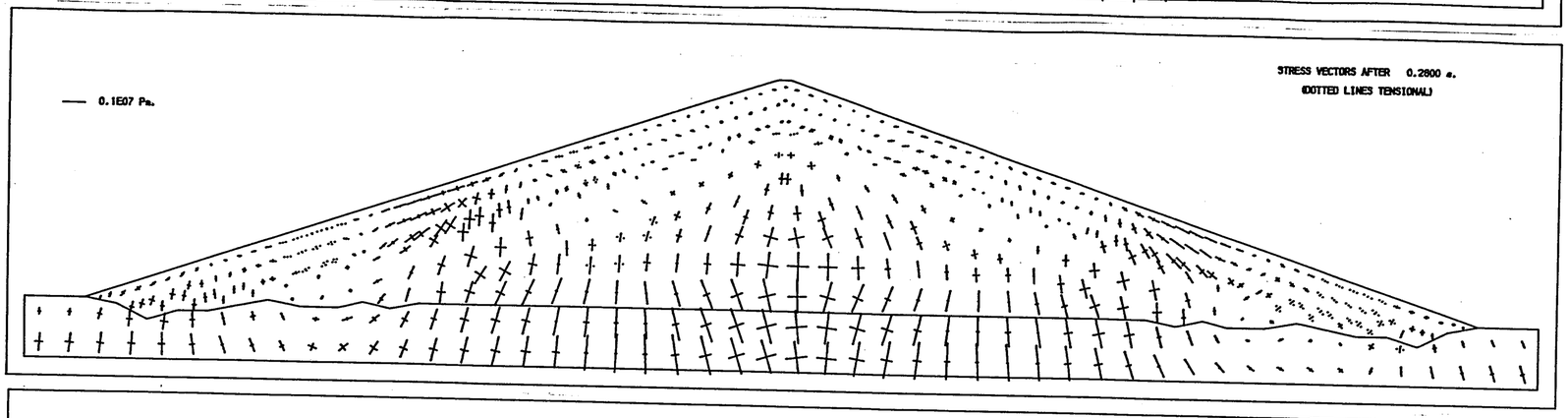

STRESS VECTORS AFTER 0.1800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

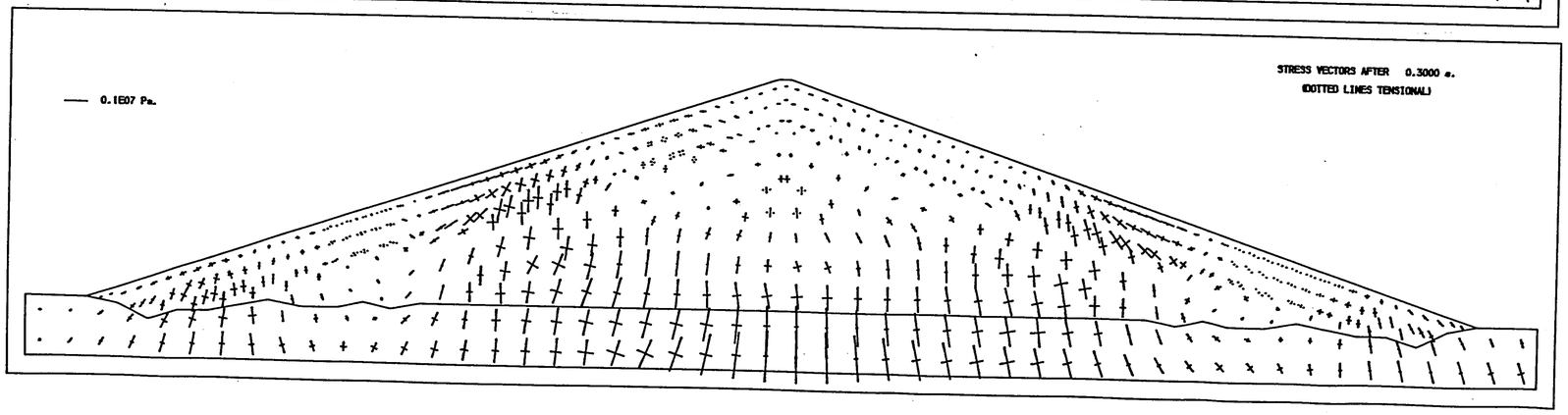

STRESS VECTORS AFTER 0.2000 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2200 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2400 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


0.1E07 Pa.
STRESS VECTORS AFTER 0.2600 s.
(DOTTED LINES TENSIONAL)


0.1E07 Pa.
STRESS VECTORS AFTER 0.2800 s.
(DOTTED LINES TENSIONAL)


0.1E07 Pa.
STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)

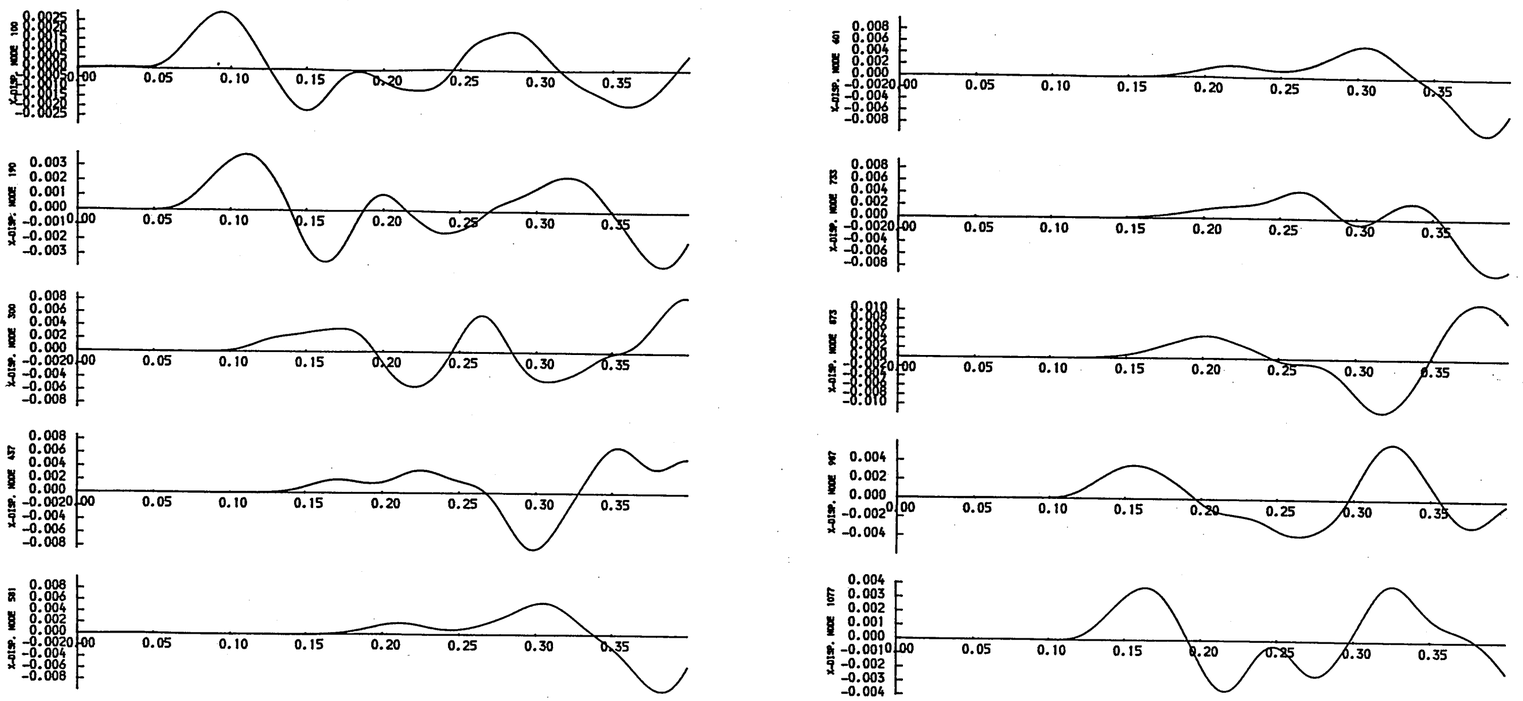
Time-displacement graphs and stress distributions for D2/4

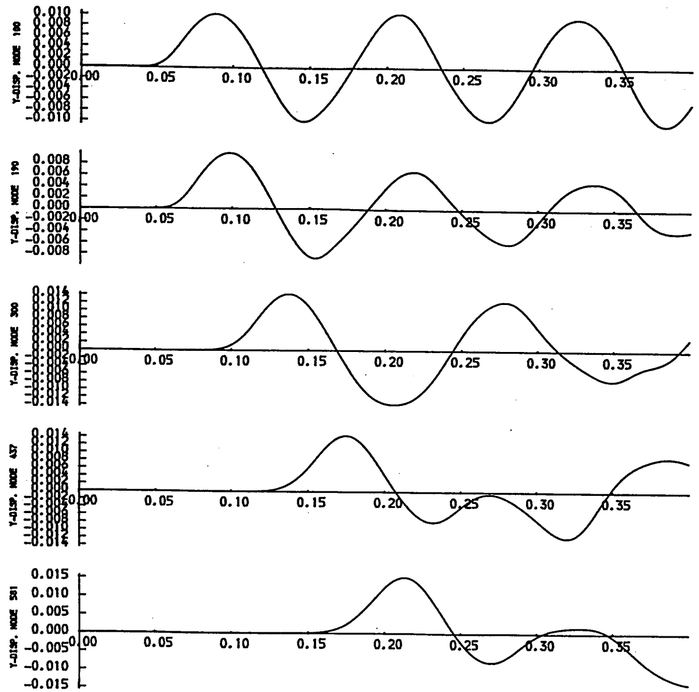
P-wave

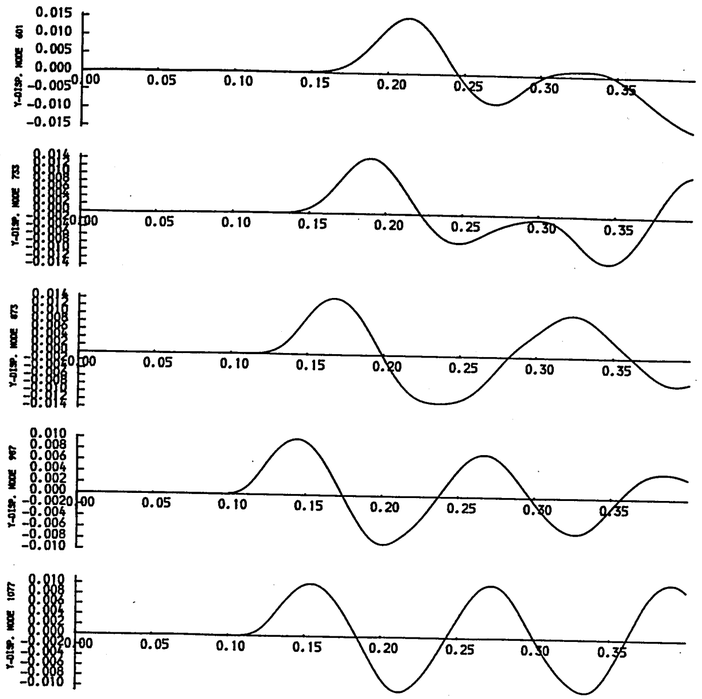
Angle of incidence 20^{o}

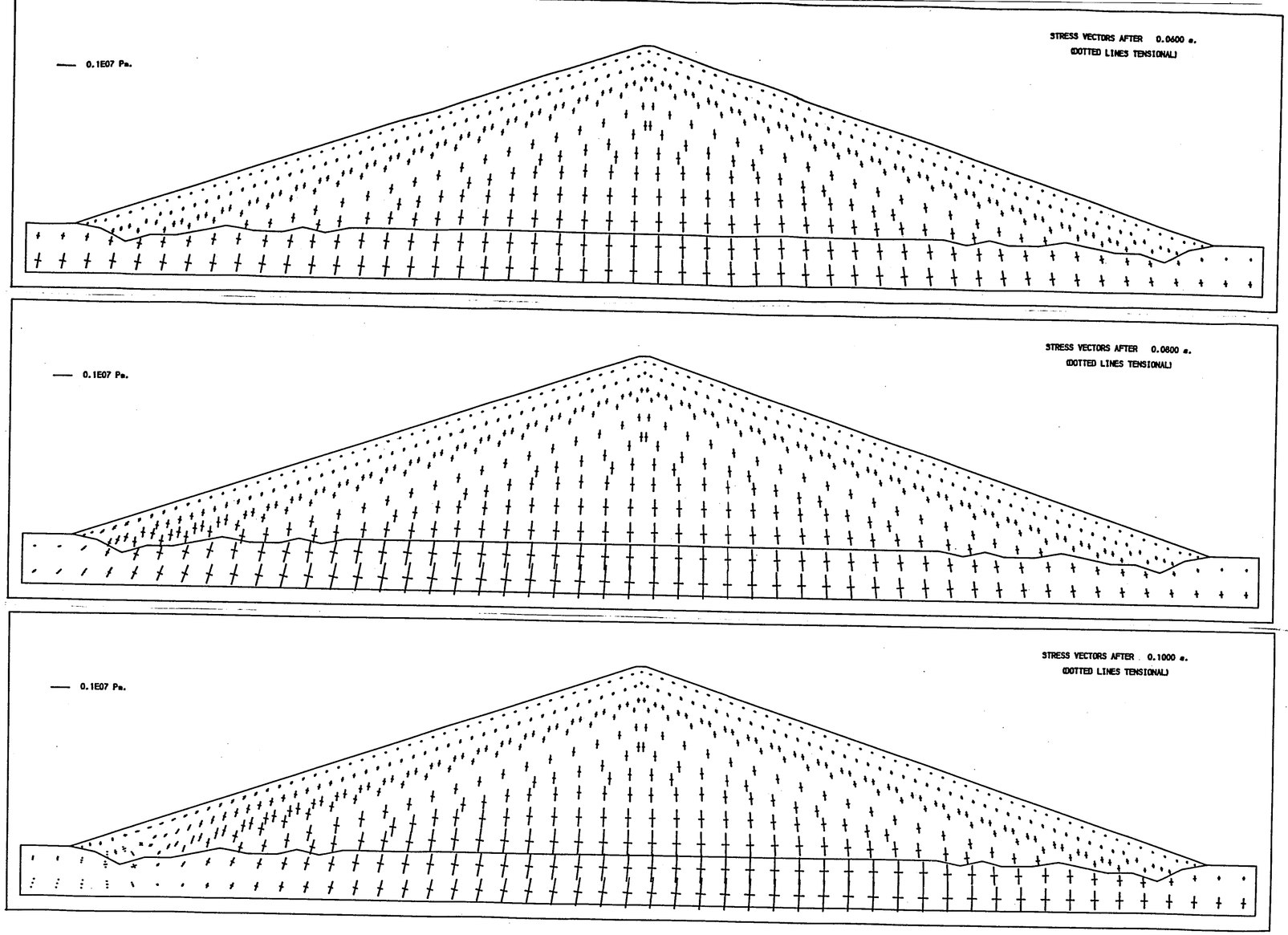
Base acceleration g

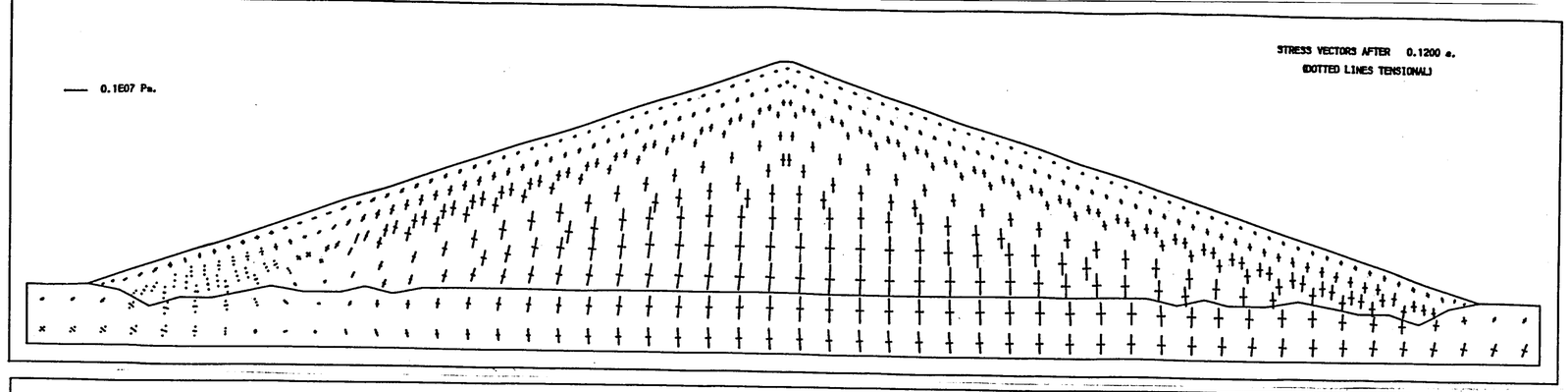
D2/4: P: 20: g

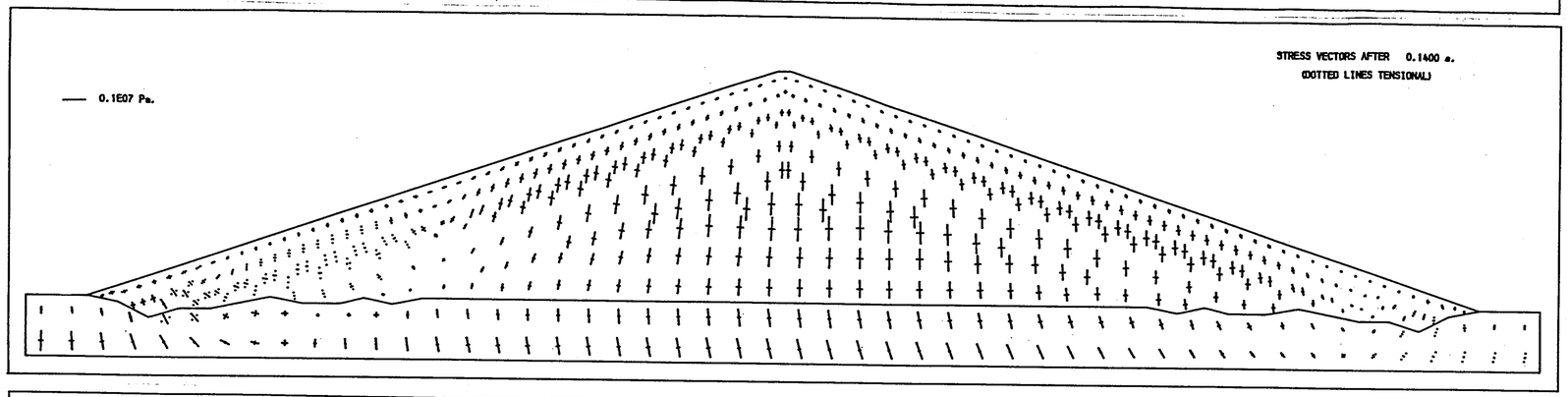

X-DISP. MODE 100
X-DISP. MODE 190
X-DISP. MODE 300
X-DISP. MODE 437
X-DISP. MODE 581
X-DISP. MODE 601
X-DISP. MODE 733
X-DISP. MODE 873
X-DISP. MODE 947
X-DISP. MODE 1077
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

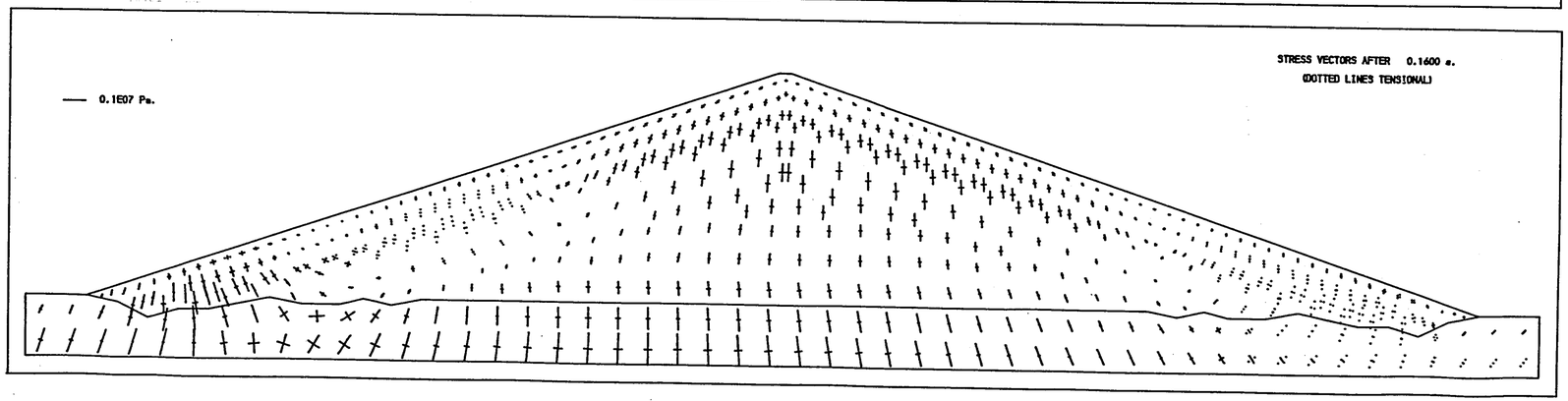

Y-DISP, MODE 180
Y-DISP, MODE 190
Y-DISP, MODE 300
Y-DISP, MODE 437
Y-DISP, MODE 581
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

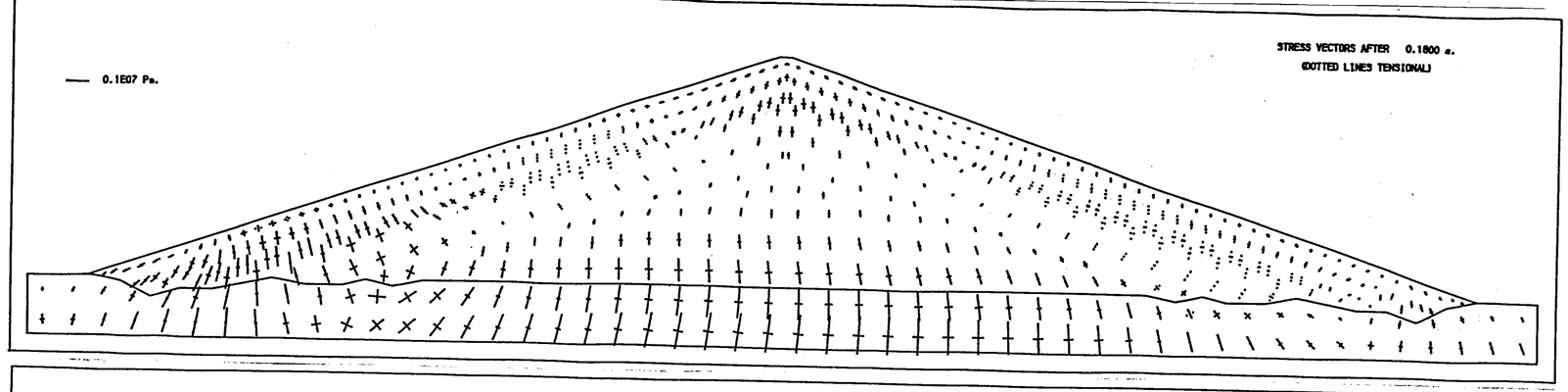

Y-DISP, MODE 601
Y-DISP, MODE 733
Y-DISP, MODE 873
Y-DISP, MODE 947
Y-DISP, MODE 1077
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

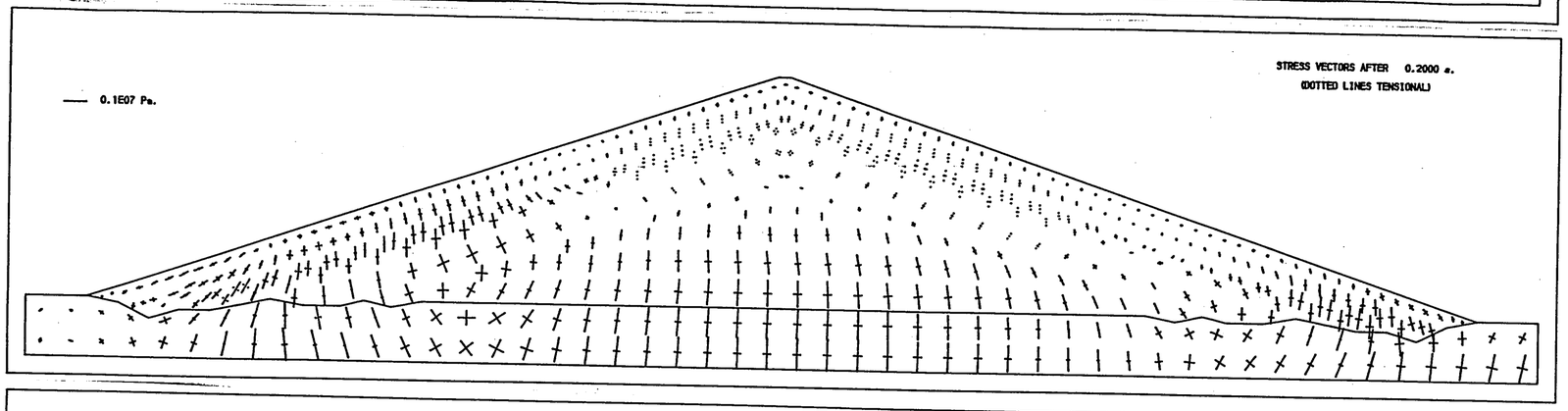

STRESS VECTORS AFTER 0.0600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.0600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

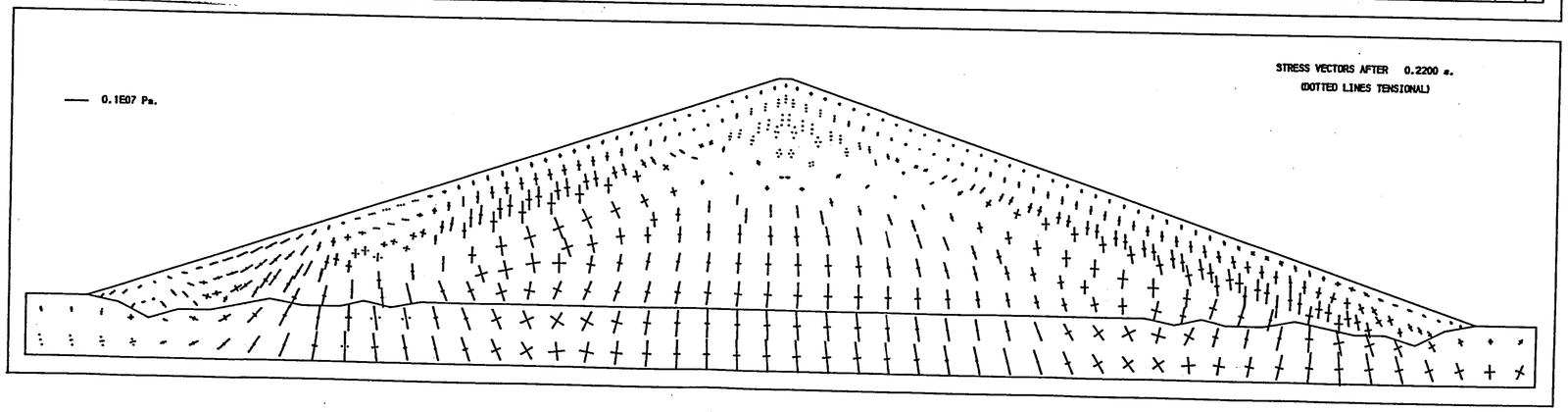

STRESS VECTORS AFTER 0.1200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

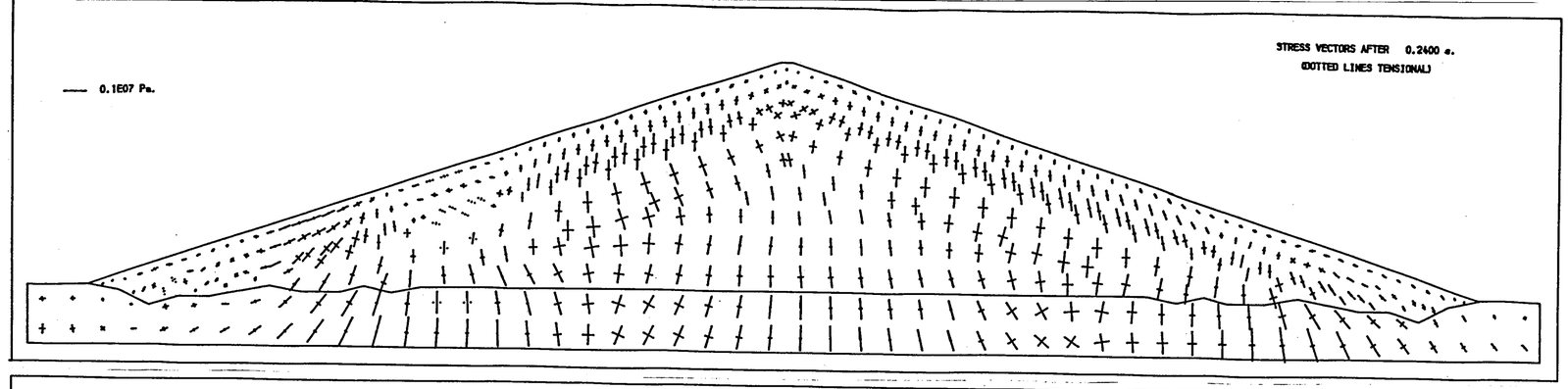

STRESS VECTORS AFTER 0.1400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

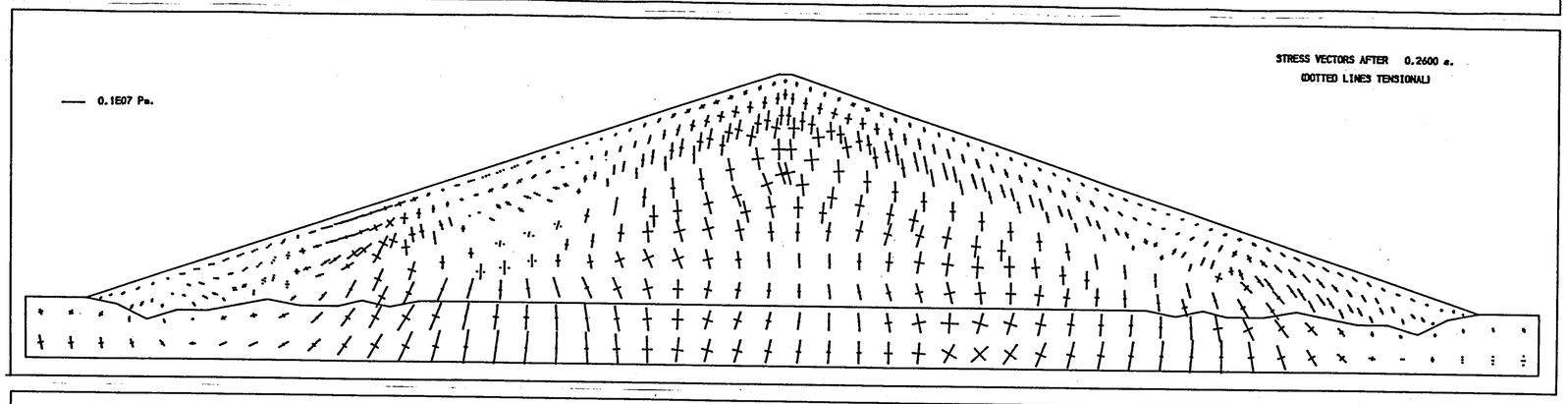

STRESS VECTORS AFTER 0.1600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

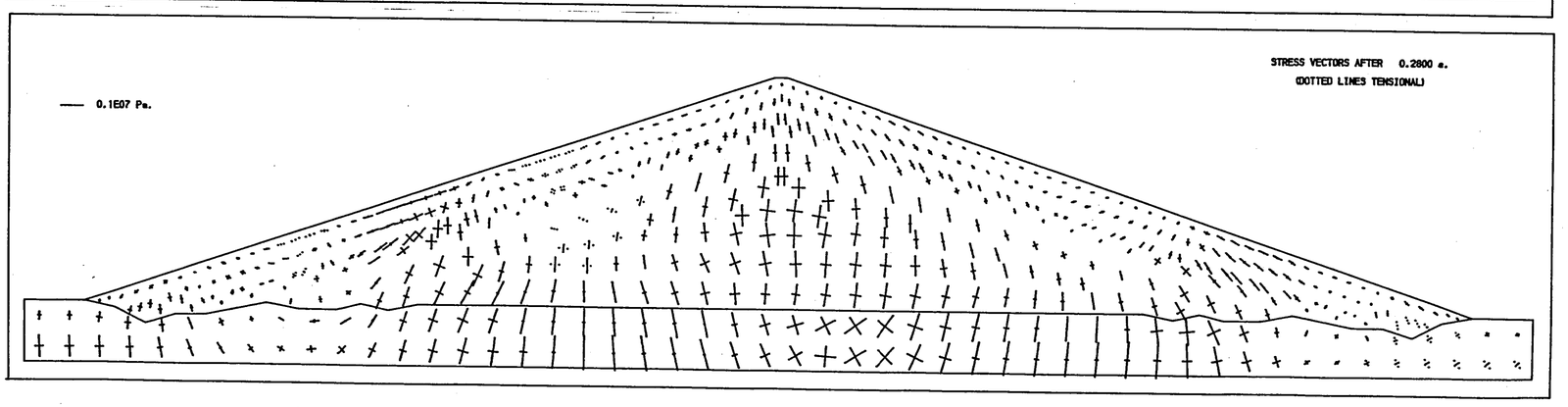

STRESS VECTORS AFTER 0.1800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

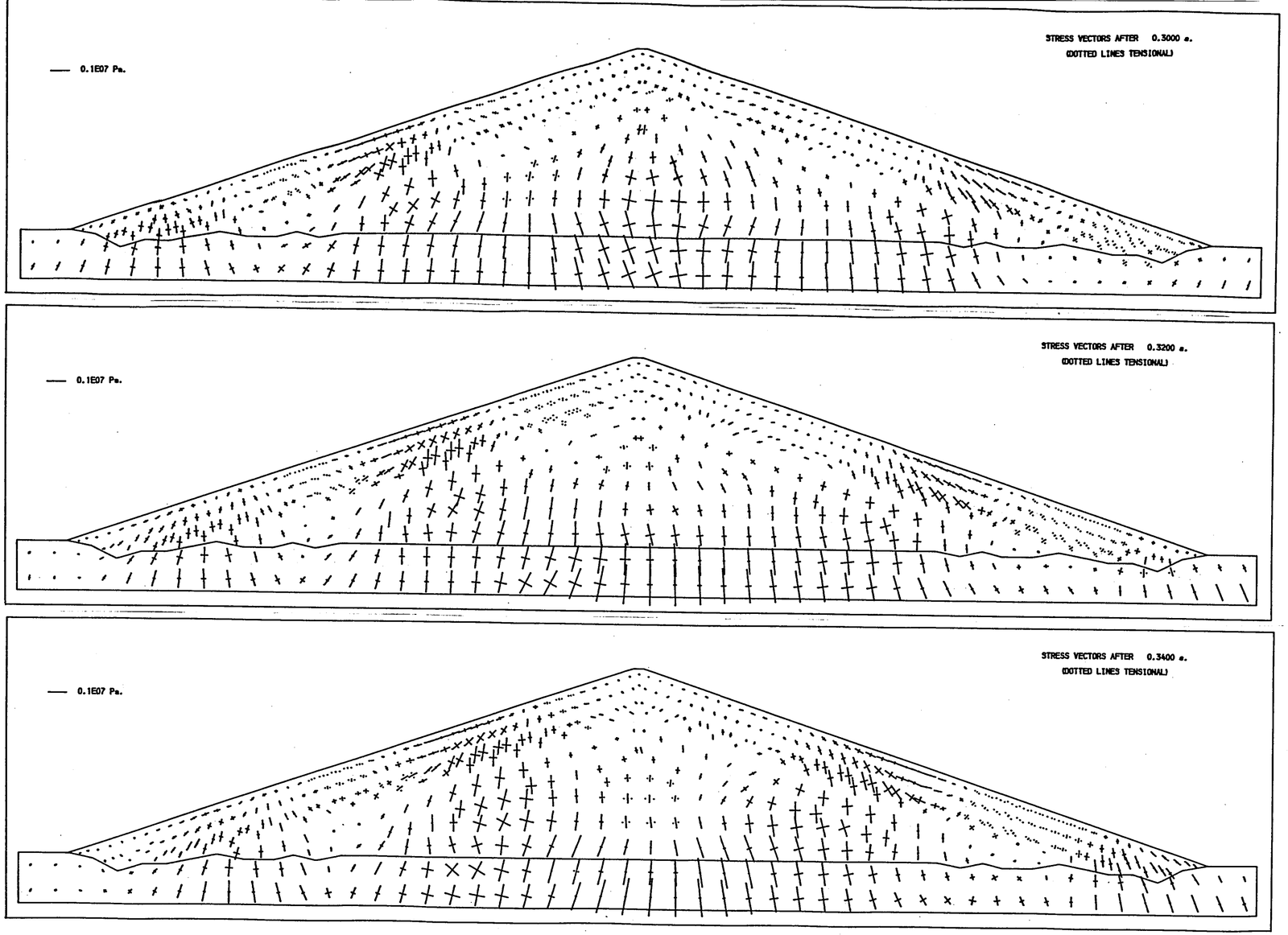

STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

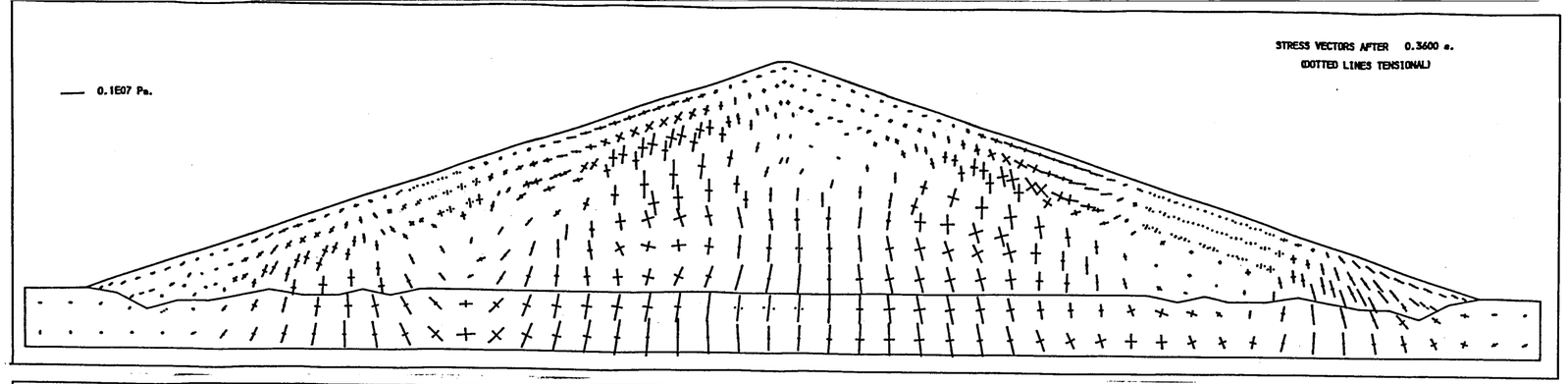

STRESS VECTORS AFTER 0.2200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

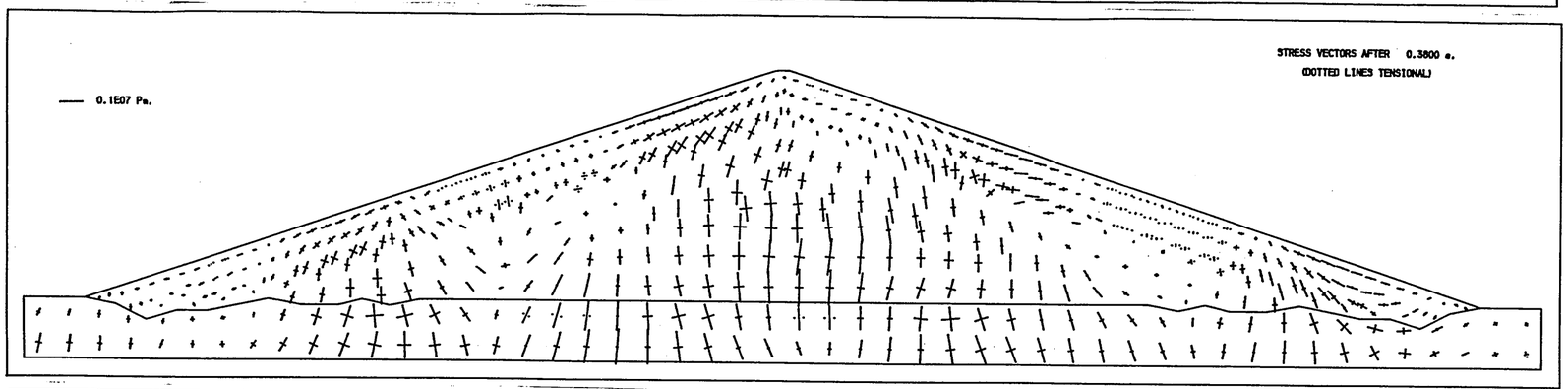

STRESS VECTORS AFTER 0.2400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

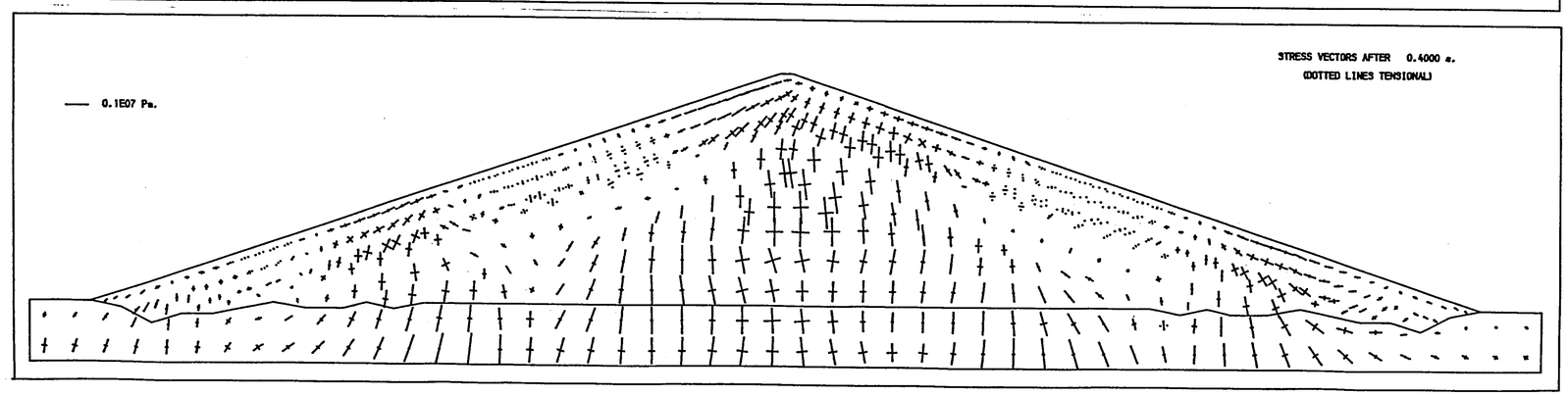

STRESS VECTORS AFTER 0.2600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3000 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3200 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3400 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

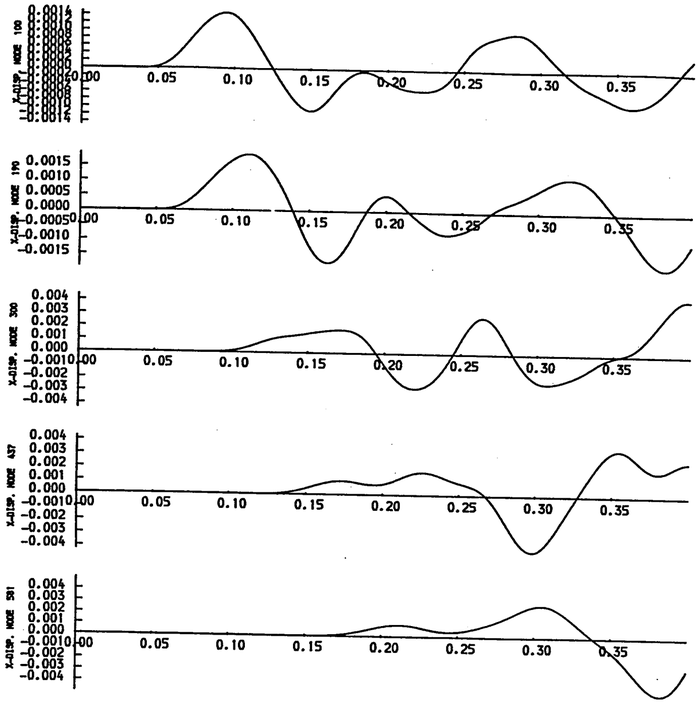
Time-displacement graphs and stress distributions for D2/5

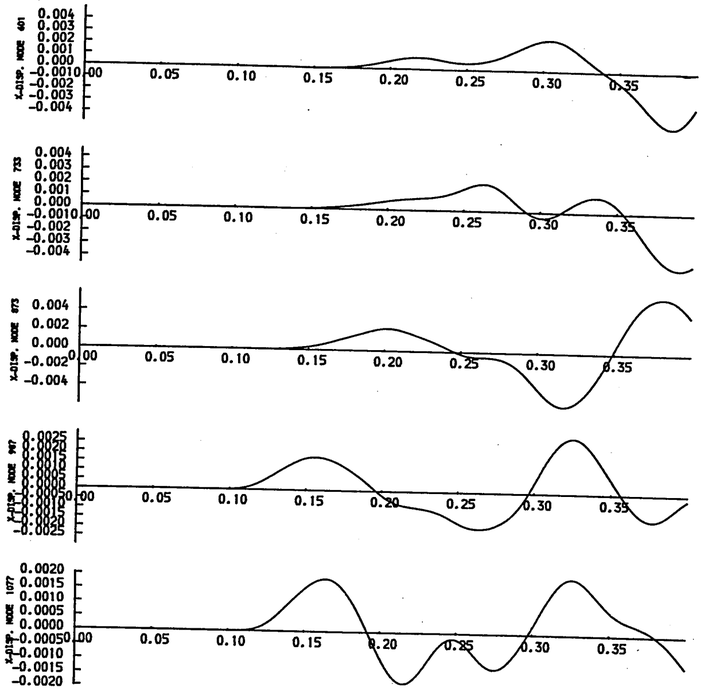
P-wave

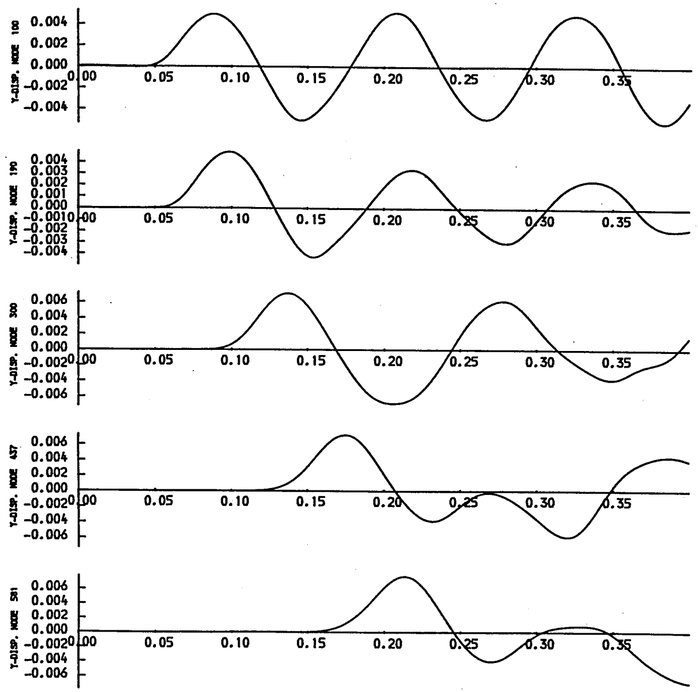
Angle of incidence 20^{0}

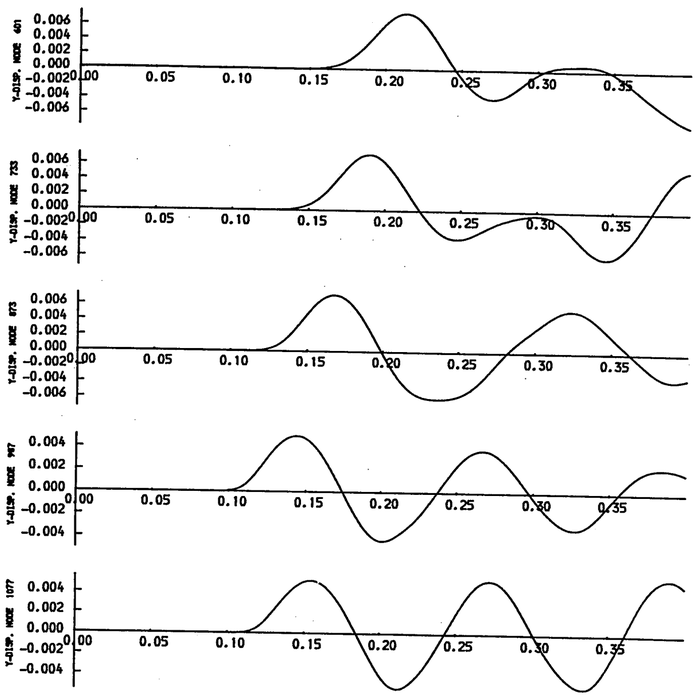
Base acceleration $\frac{1}{2}g$

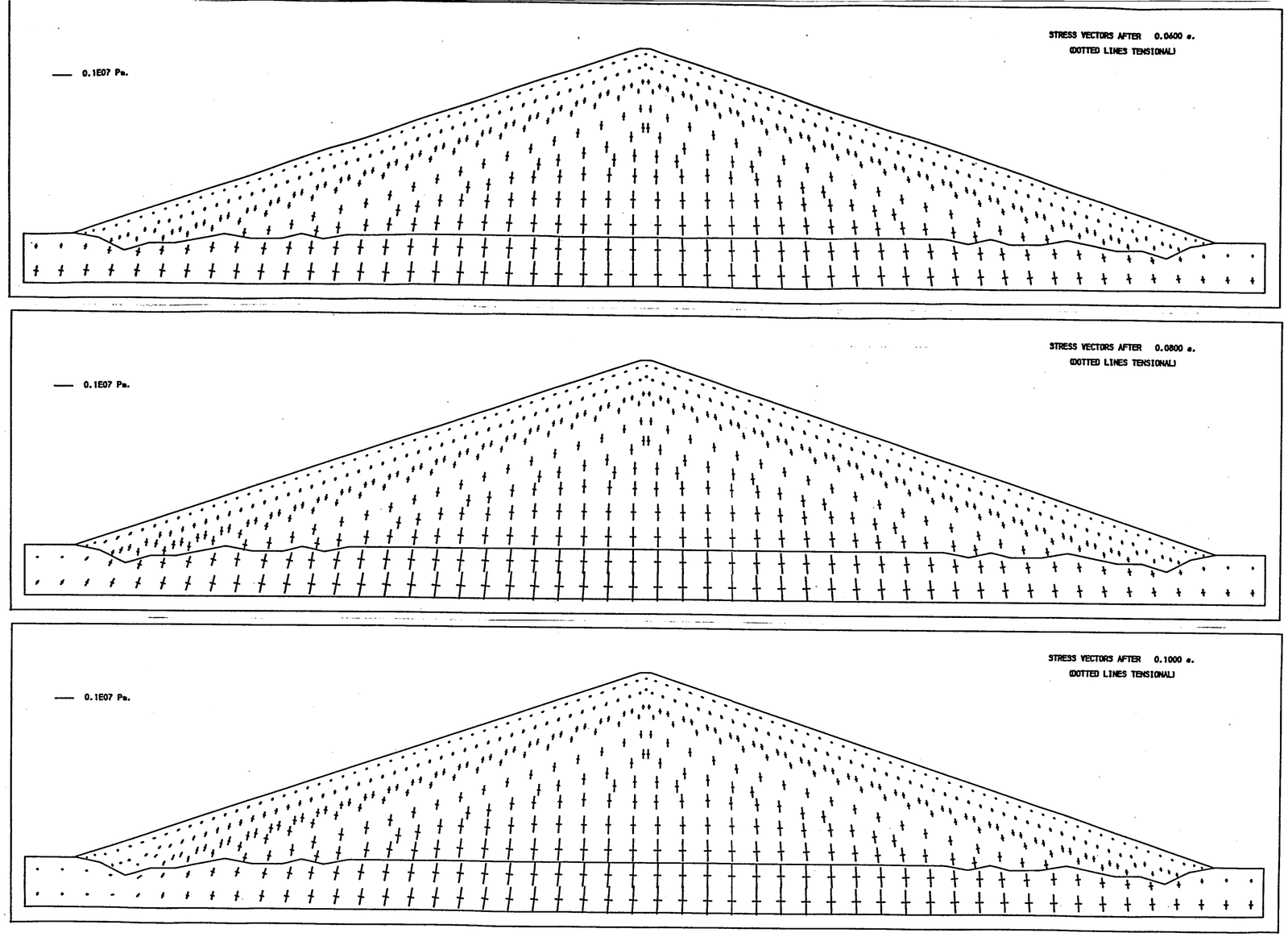
D2/5; P; 20; $\frac{1}{2}g$

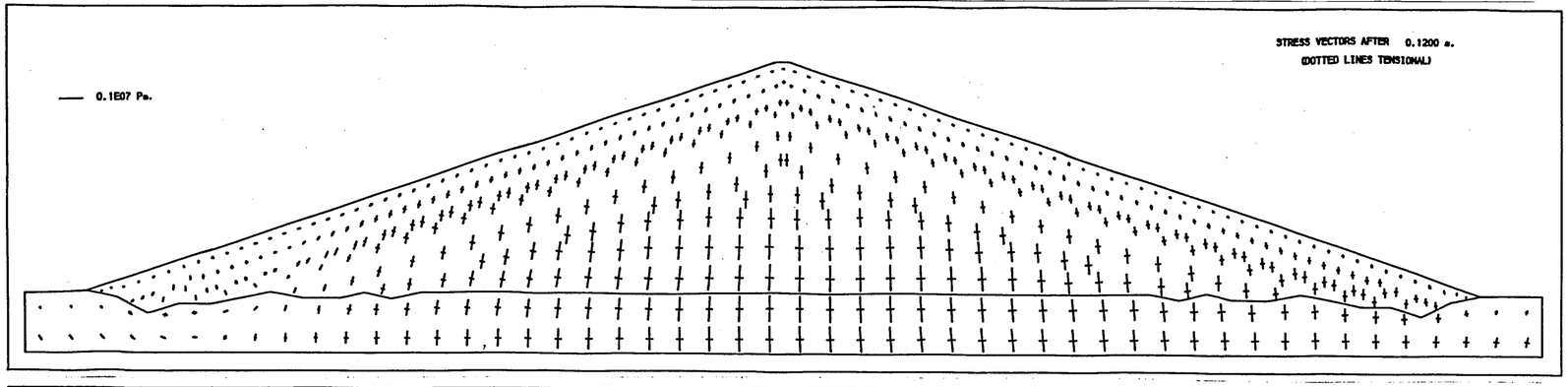

X-DISP. MODE 100
X-DISP. MODE 190
X-DISP. MODE 300
X-DISP. MODE 437
X-DISP. MODE 581
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35

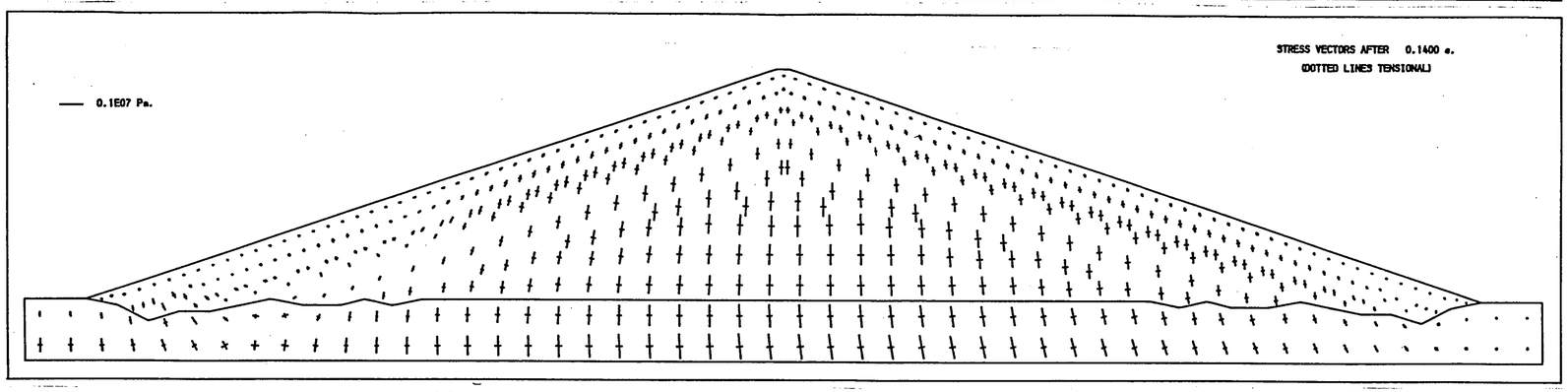

X-DISP. MODE 401
X-DISP. MODE 733
X-DISP. MODE 873
X-DISP. MODE 947
X-DISP. MODE 1077
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35

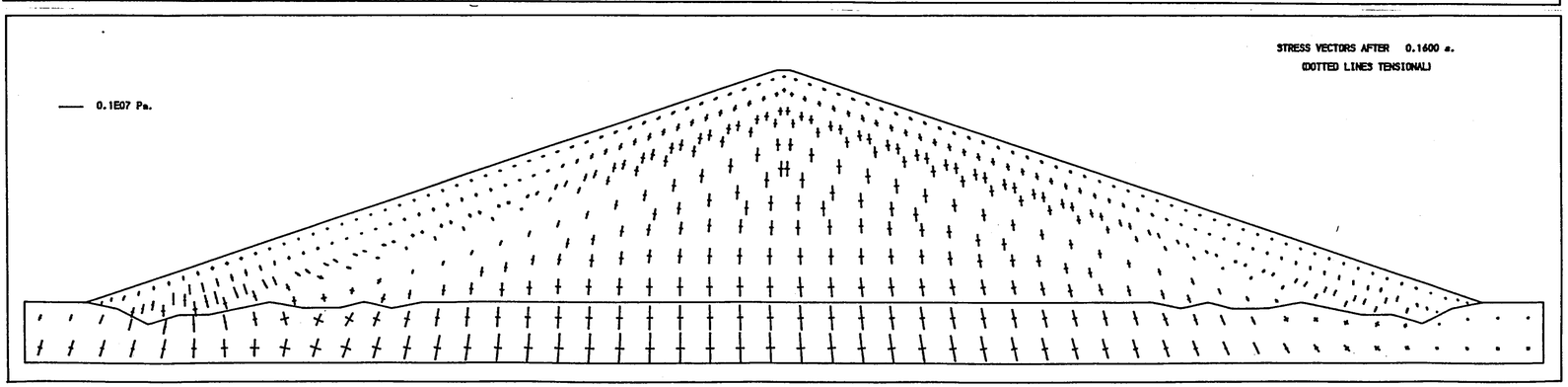

Y-DISP. NODE 100
0.004
0.002
0.000
-0.002
-0.004
Y-DISP. NODE 190
0.004
0.003
0.002
0.001
0.000
-0.001
-0.002
-0.003
-0.004
Y-DISP. NODE 300
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
Y-DISP. NODE 437
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
Y-DISP. NODE 581
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

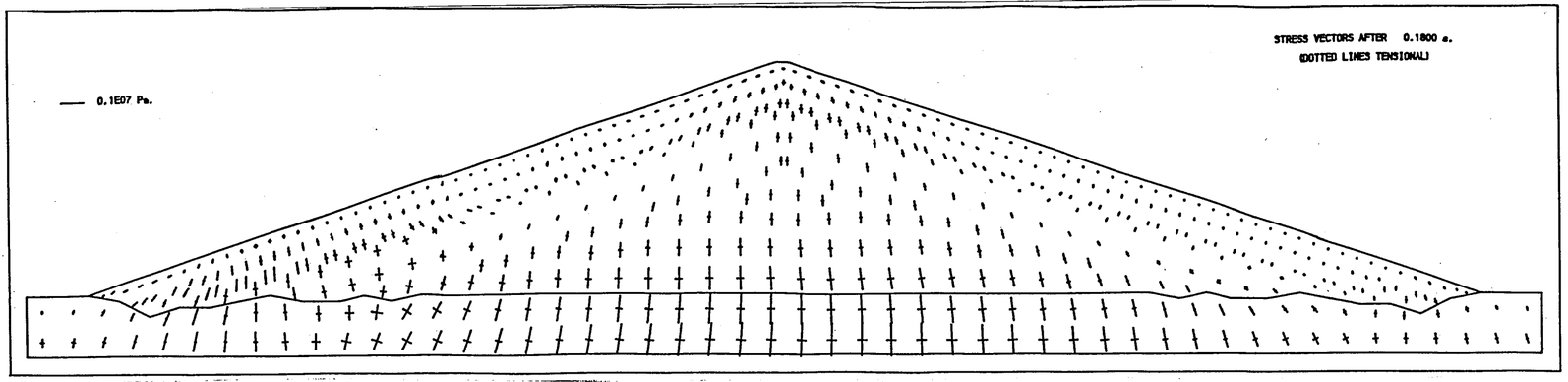

Y-DISP. NODE 401
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
Y-DISP. NODE 733
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
Y-DISP. NODE 873
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
Y-DISP. NODE 947
0.004
0.002
0.000
-0.002
-0.004
Y-DISP. NODE 1077
0.004
0.002
0.000
-0.002
-0.004
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

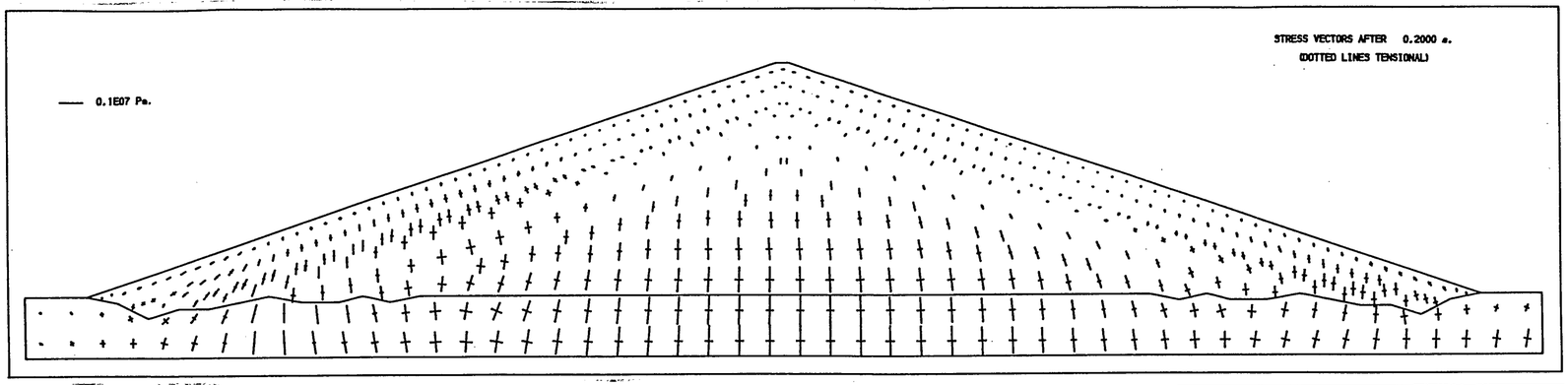

STRESS VECTORS AFTER 0.0600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.0800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

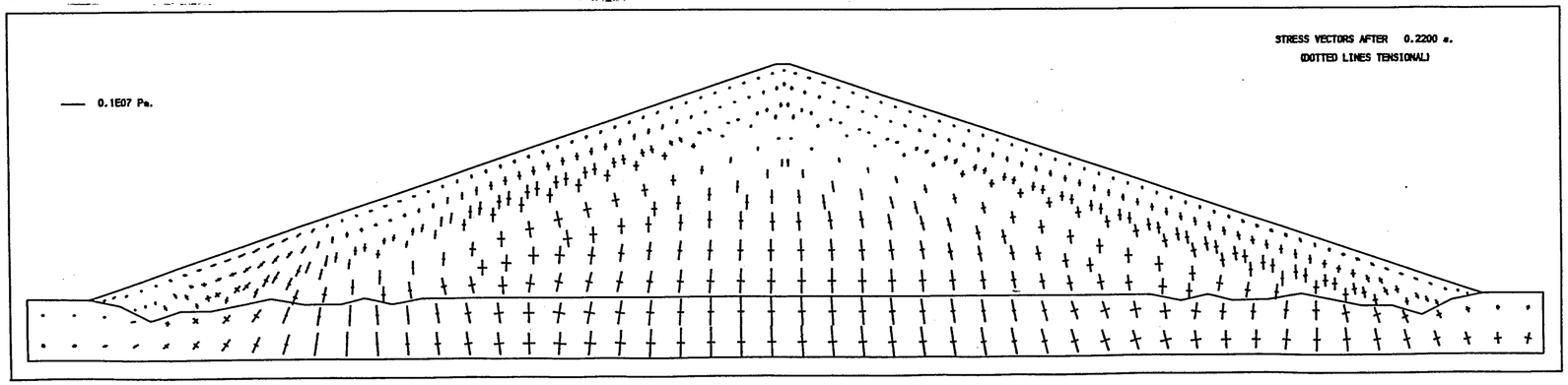

STRESS VECTORS AFTER 0.1200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

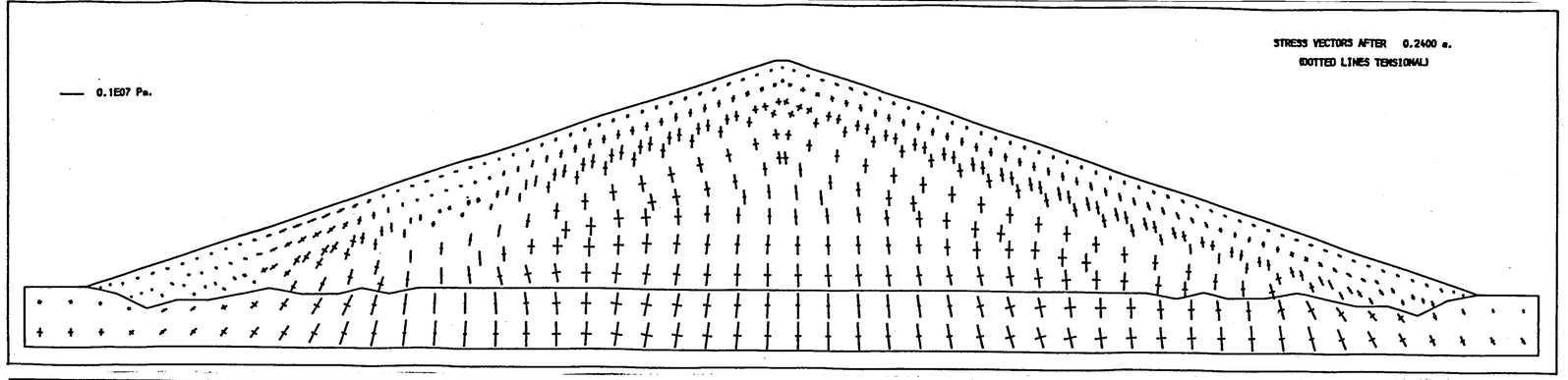

STRESS VECTORS AFTER 0.1400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

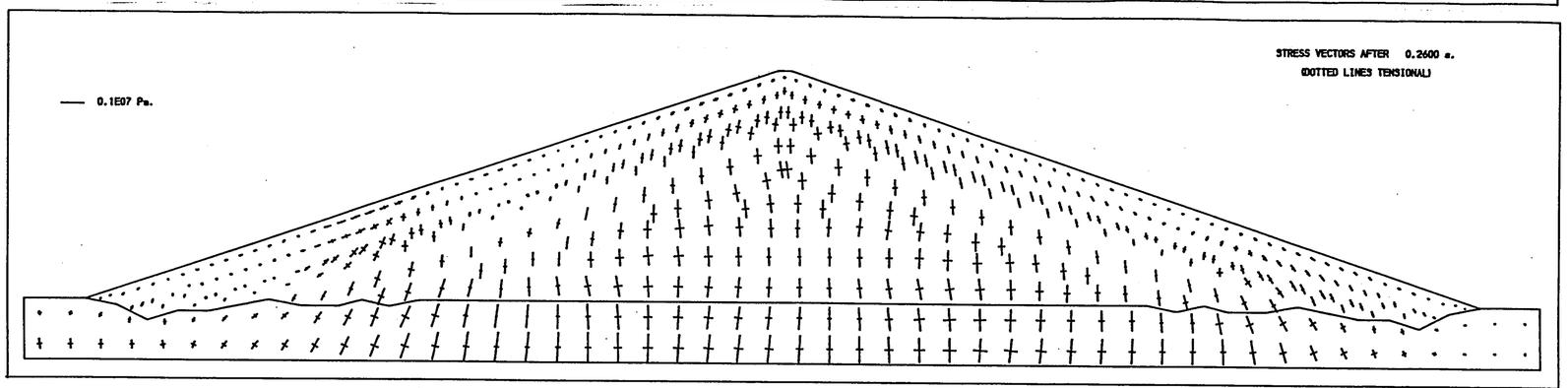

STRESS VECTORS AFTER 0.1600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

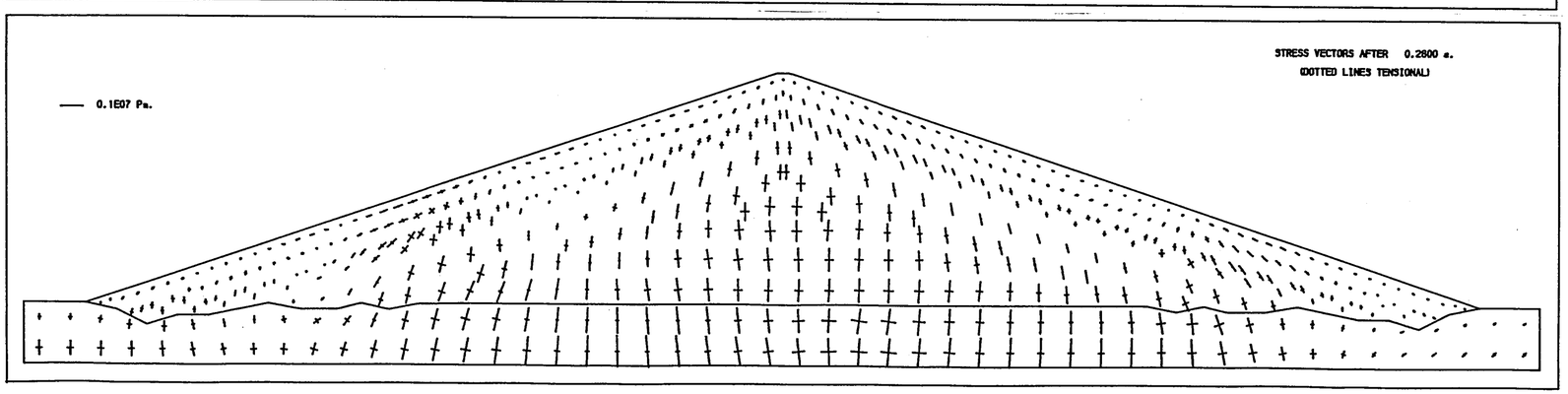

STRESS VECTORS AFTER 0.1800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

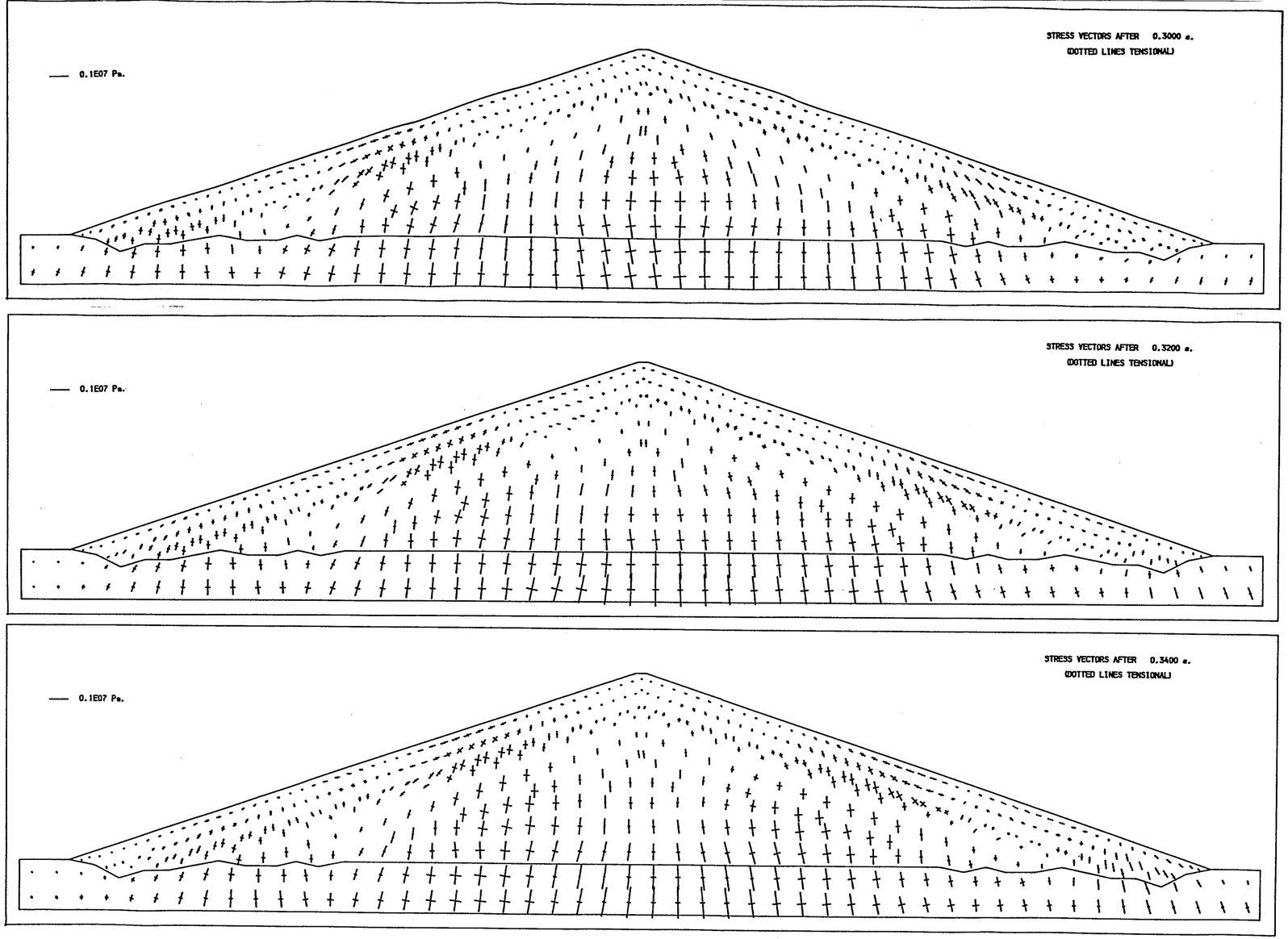

STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

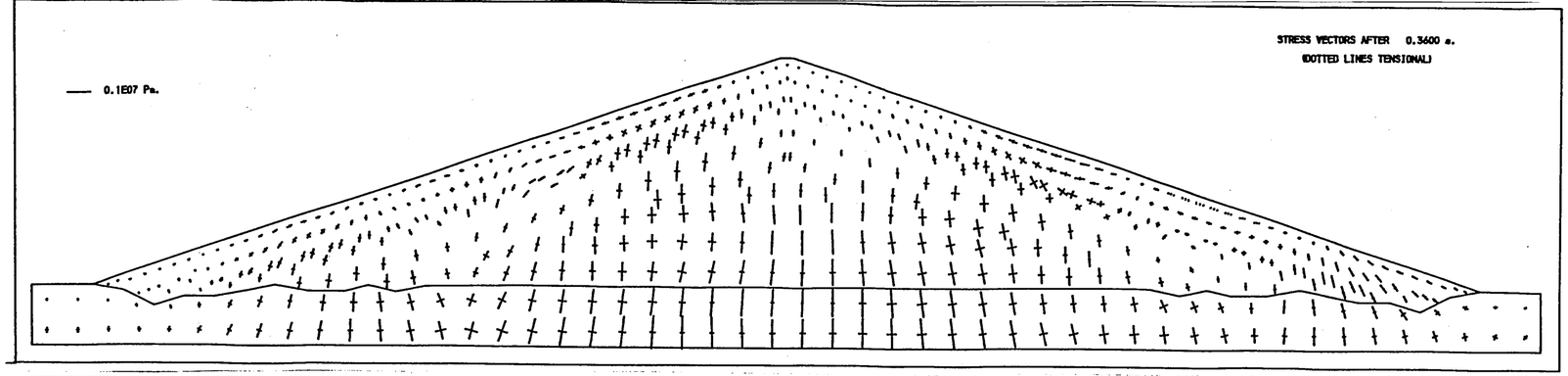

STRESS VECTORS AFTER 0.2200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

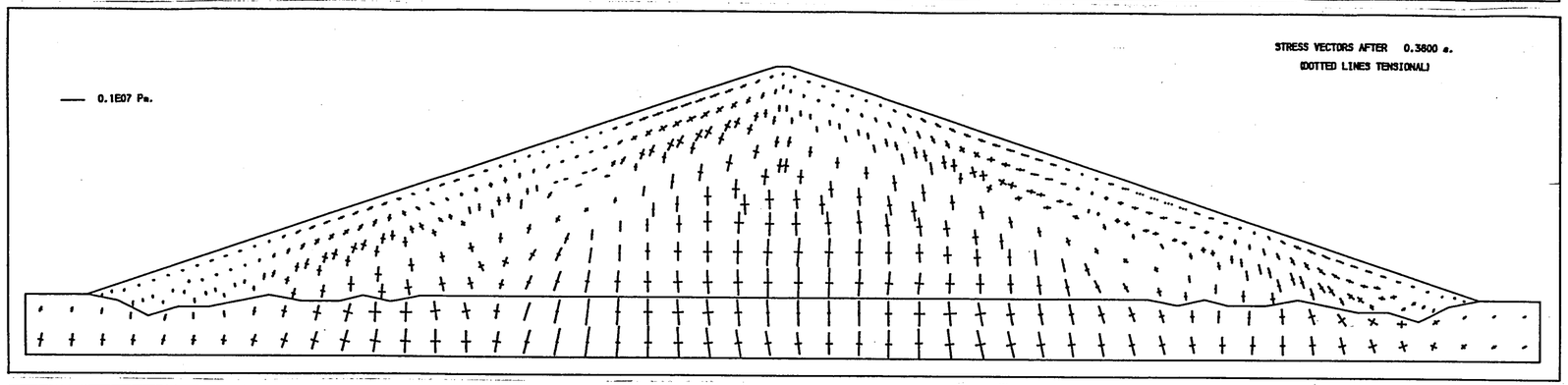

STRESS VECTORS AFTER 0.2400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

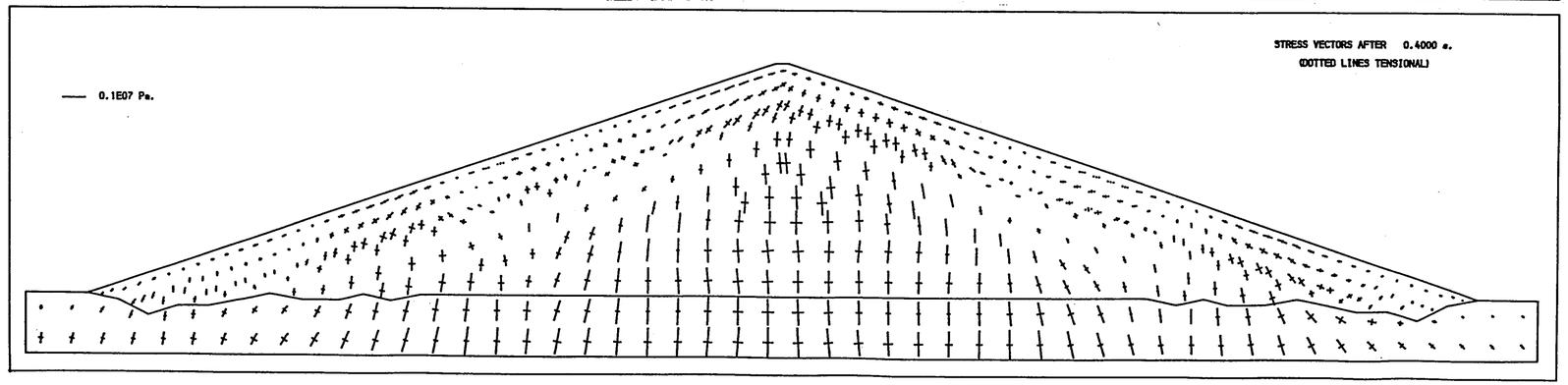

STRESS VECTORS AFTER 0.2600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3200 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3400 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3600 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3800 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

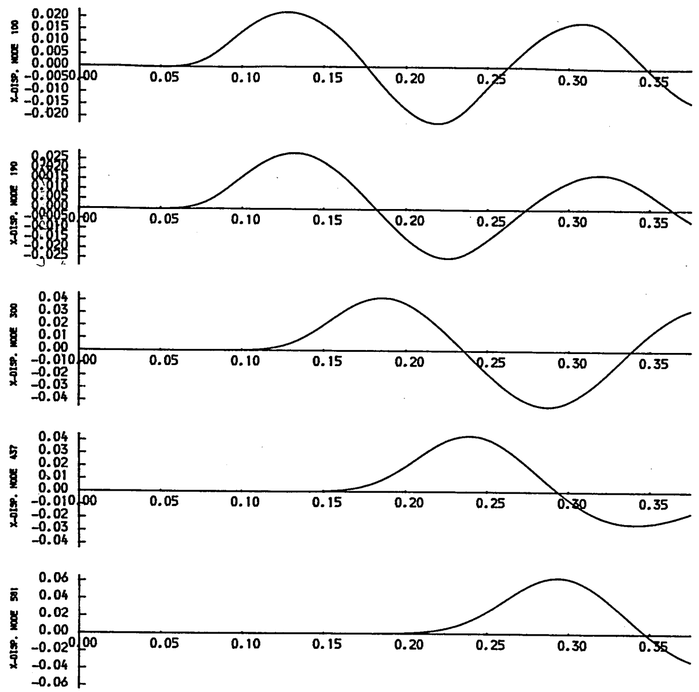

STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

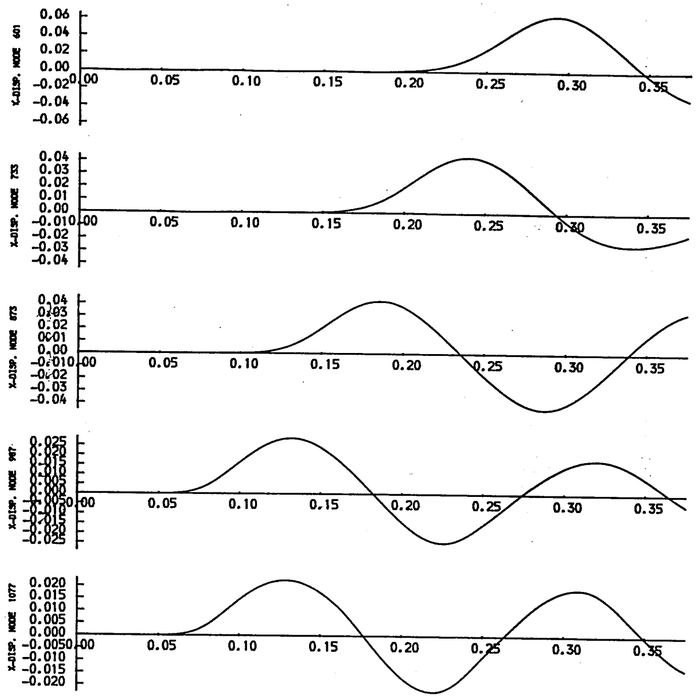
Time-displacement graphs and stress distributions for D2/6

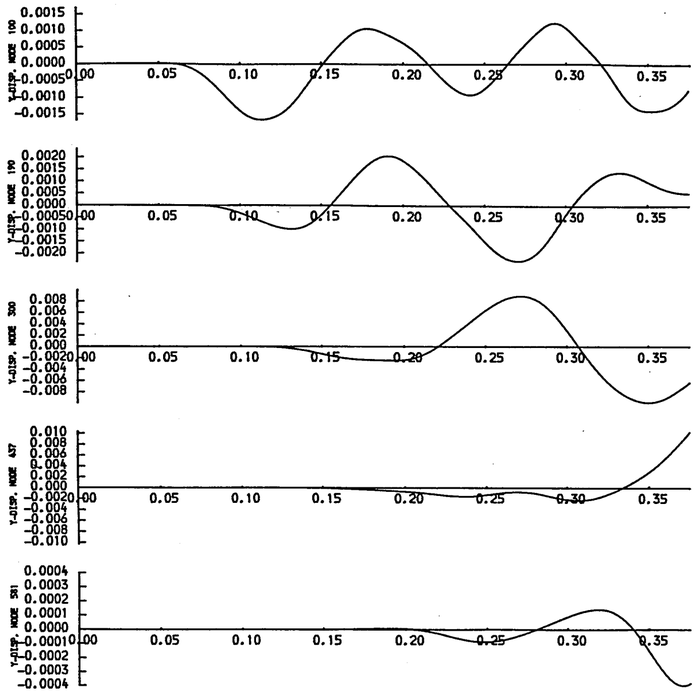
S-wave

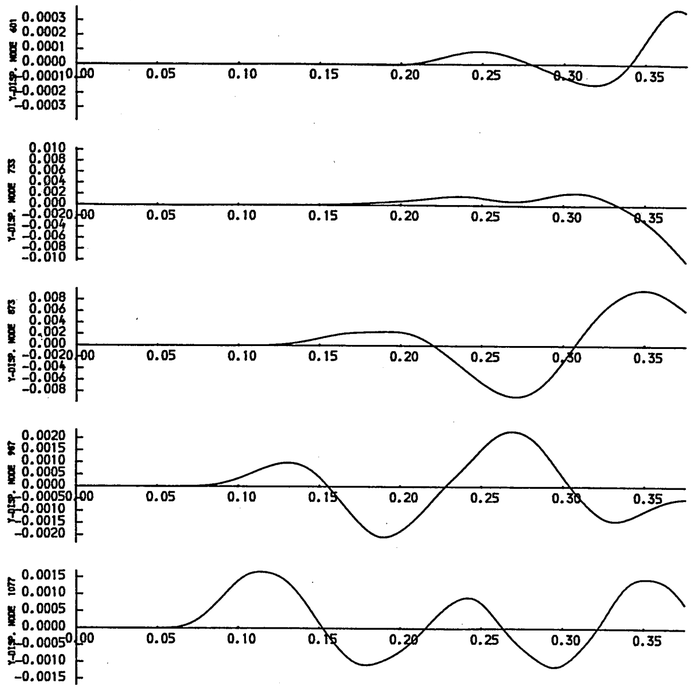
Angle of incidence 0^{o}

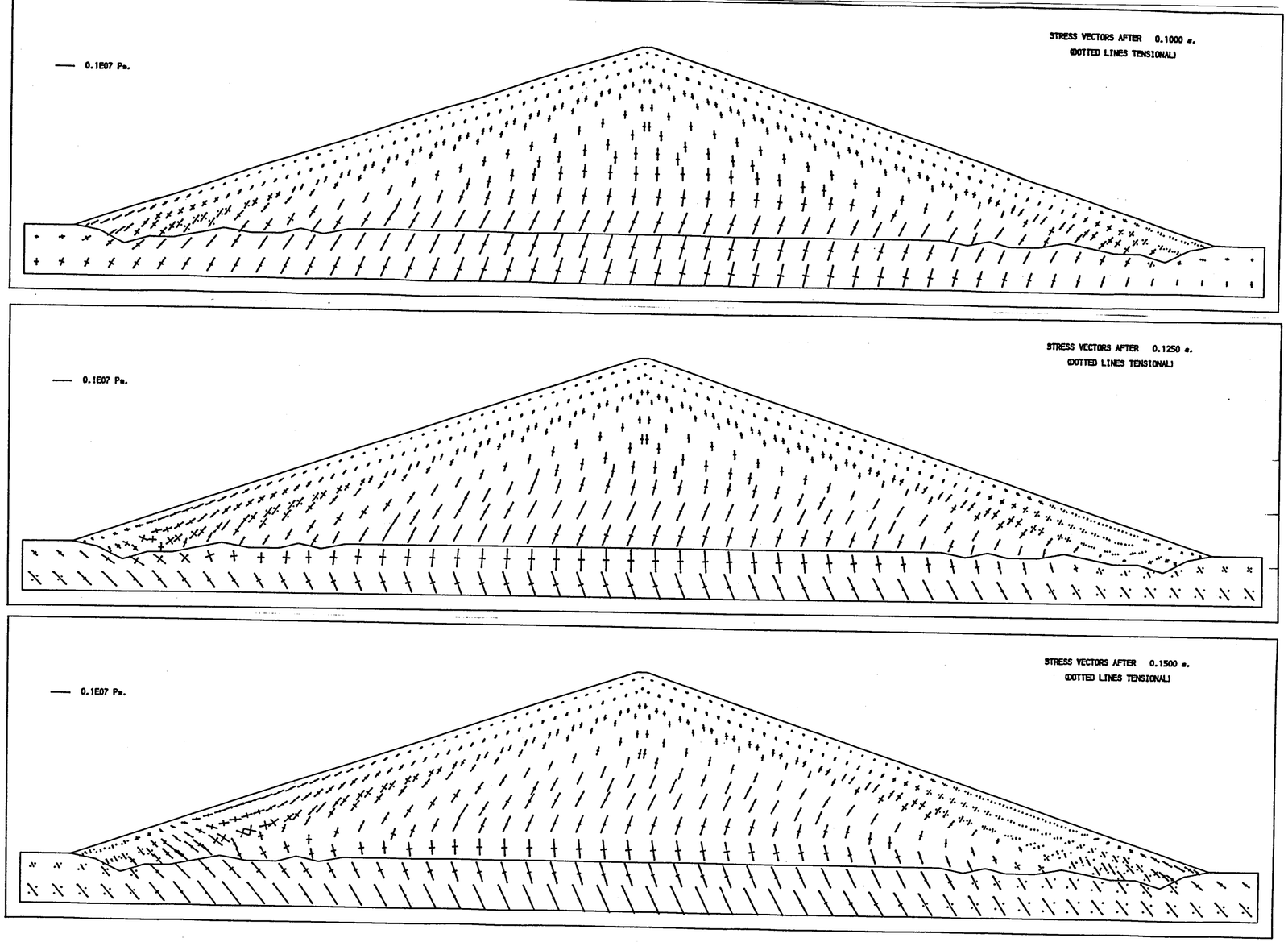
Base acceleration g

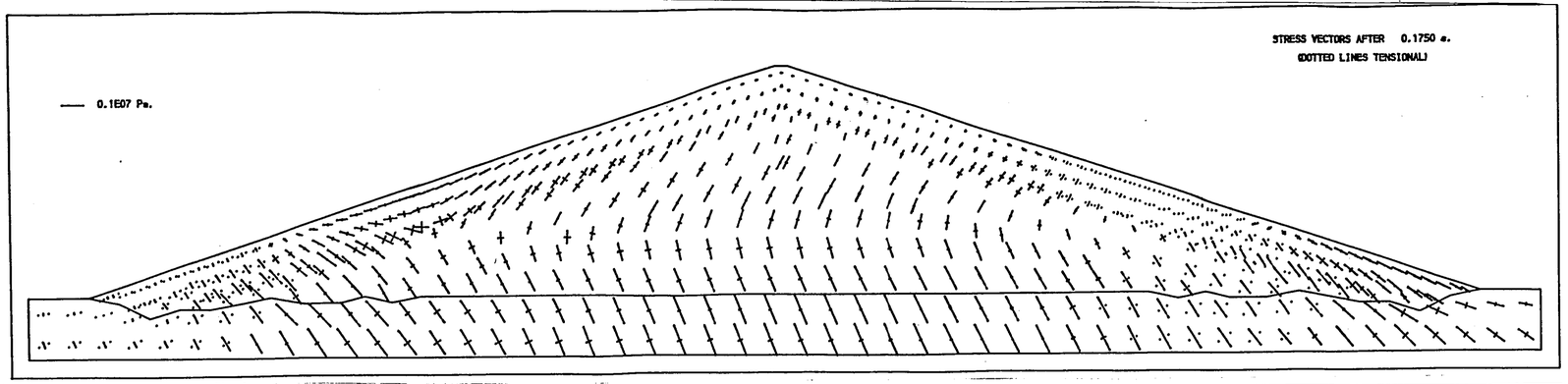

X-DISP. MODE 100
0.020
0.015
0.010
0.005
0.000
-0.0050
-0.010
-0.015
-0.020
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
X-DISP. MODE 190
X-DISP. MODE 300
0.04
0.03
0.02
0.01
0.00
-0.010
-0.02
-0.03
-0.04
X-DISP. MODE 437
X-DISP. MODE 591
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06

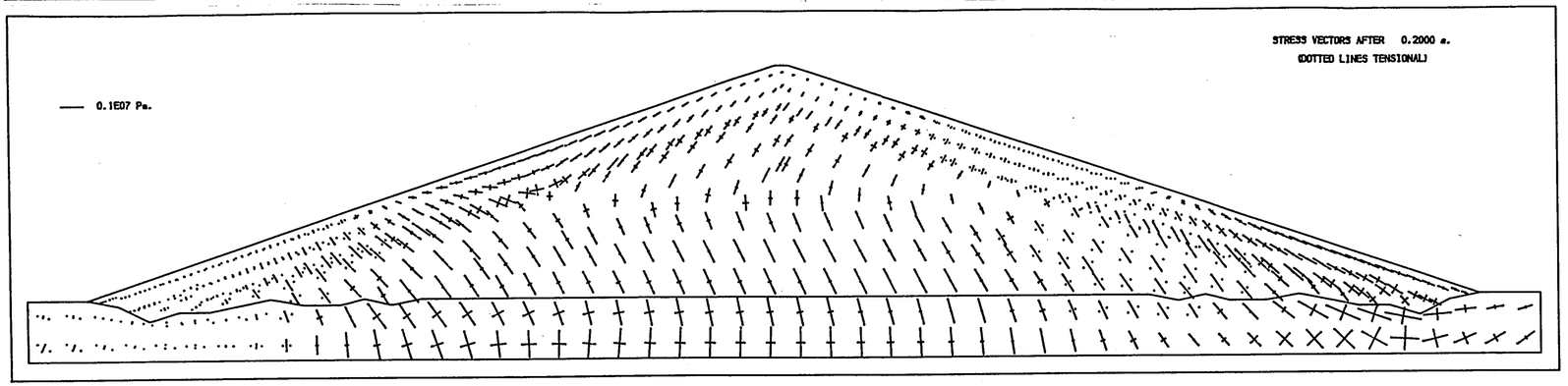

X-DISP. MODE 601
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
X-DISP. MODE 733
0.04
0.03
0.02
0.01
0.00
-0.010
-0.02
-0.03
-0.04
X-DISP. MODE 873
X-DISP. MODE 947
0.025
0.020
0.015
0.010
0.005
0.000
-0.0050
-0.010
-0.015
-0.020
-0.025
X-DISP. MODE 1077

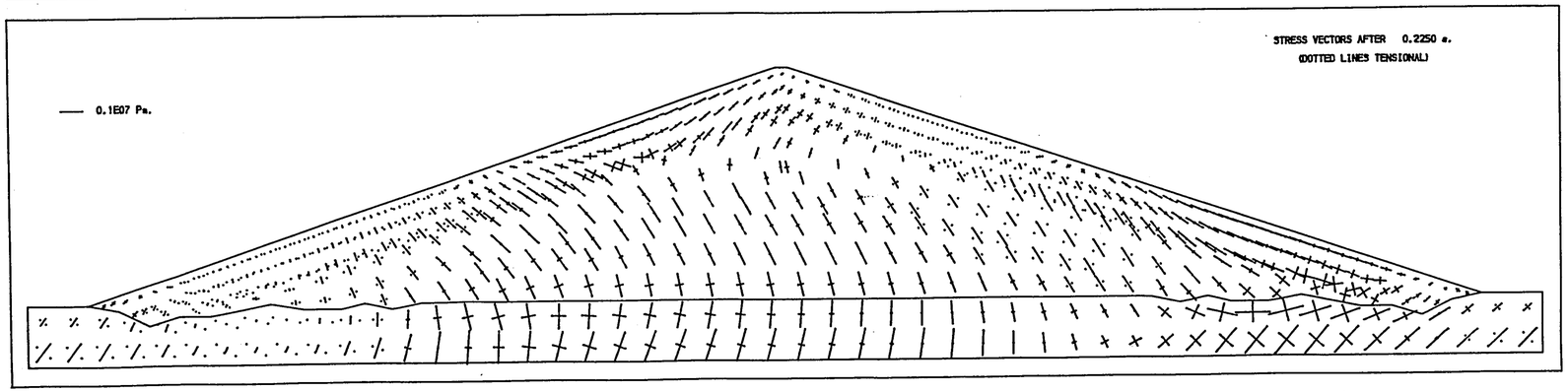

Y-DISP, MODE 190
0.0015
0.0010
0.0005
0.0000
-0.0005
-0.0010
-0.0015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 190
0.0020
0.0015
0.0010
0.0005
0.0000
-0.00050
-0.0010
-0.0015
-0.0020
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 300
0.008
0.006
0.004
0.002
0.000
-0.0020
-0.004
-0.006
-0.008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 437
0.010
0.008
0.006
0.004
0.002
0.000
-0.0020
-0.004
-0.006
-0.008
-0.010
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 581
0.0004
0.0003
0.0002
0.0001
0.0000
-0.0001
-0.0002
-0.0003
-0.0004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35

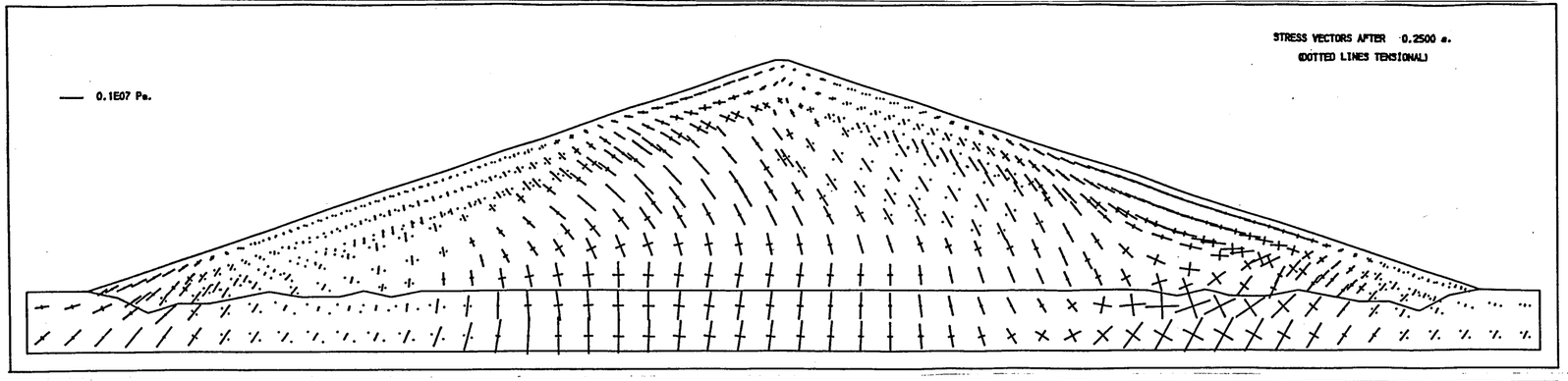

Y-DISP, MODE 401
0.0003
0.0002
0.0001
0.0000
-0.0001
-0.0002
-0.0003
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 733
0.010
0.008
0.006
0.004
0.002
0.000
-0.0020
-0.004
-0.006
-0.008
-0.010
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 873
0.008
0.006
0.004
0.002
0.000
-0.0020
-0.004
-0.006
-0.008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 947
0.0020
0.0015
0.0010
0.0005
0.0000
-0.00050
-0.0010
-0.0015
-0.0020
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 1077
0.0015
0.0010
0.0005
0.0000
-0.0005
-0.0010
-0.0015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35

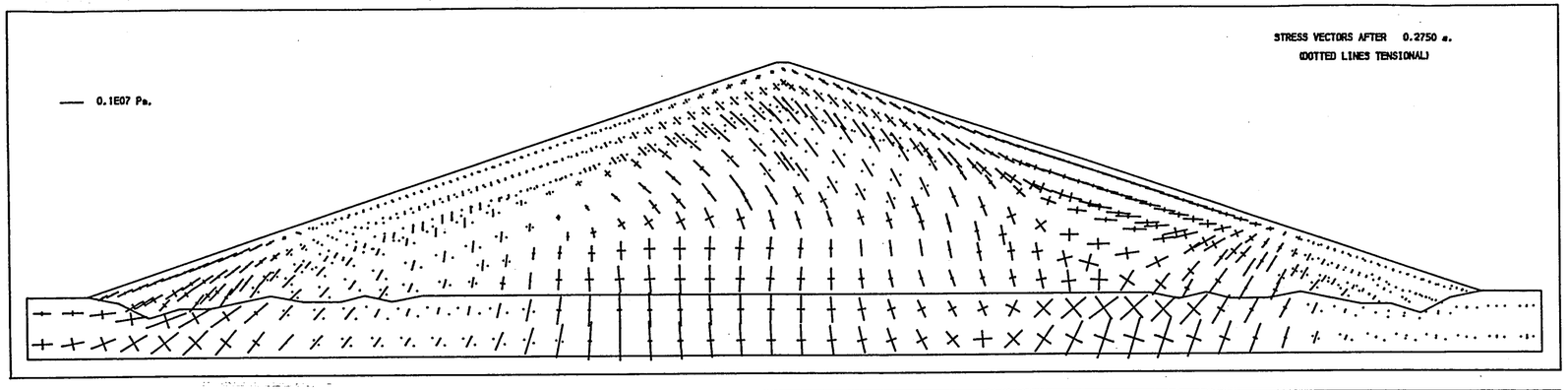

STRESS VECTORS AFTER 0.1000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.1500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

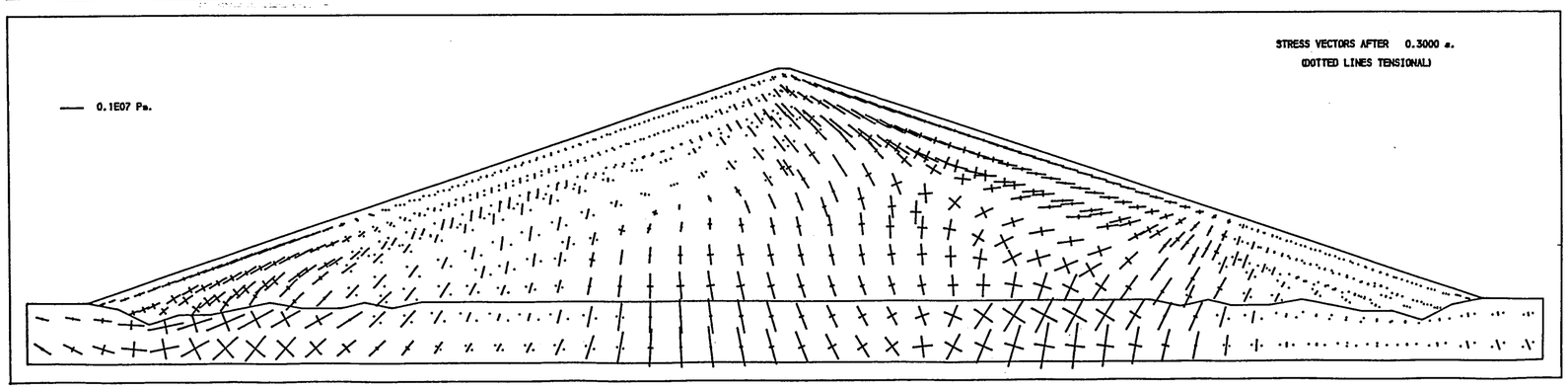

STRESS VECTORS AFTER 0.1750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

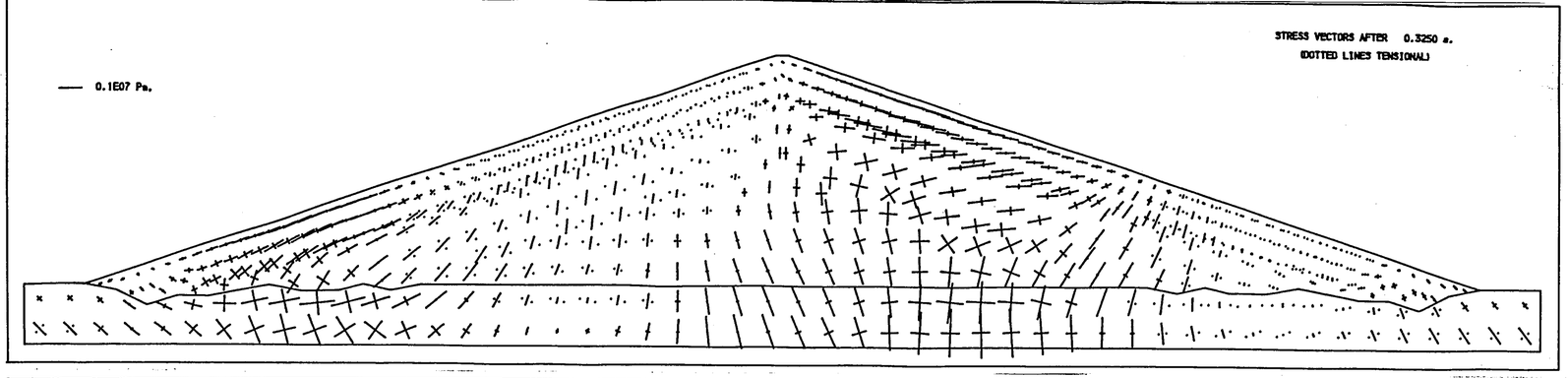

STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

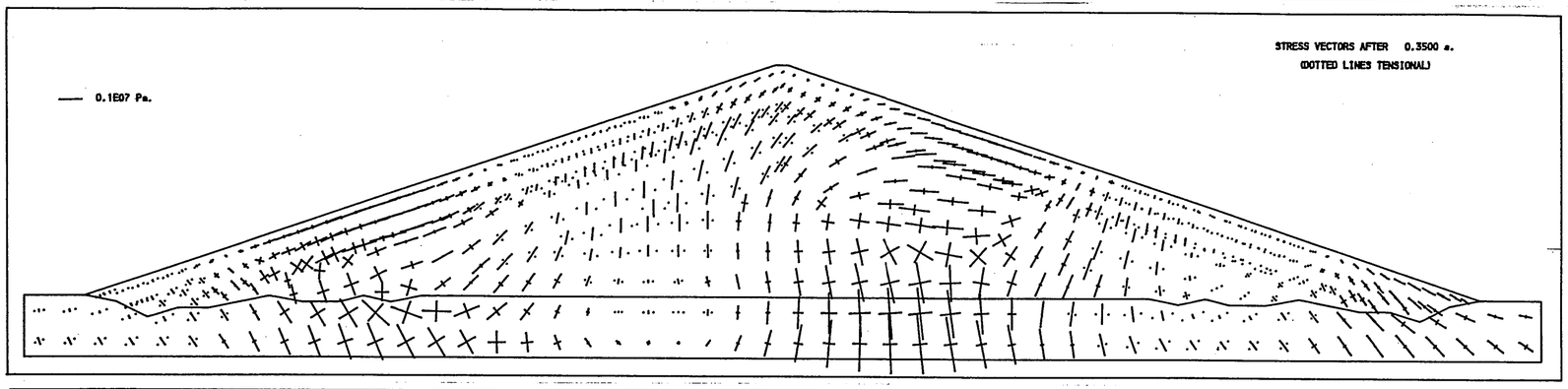

STRESS VECTORS AFTER 0.2250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

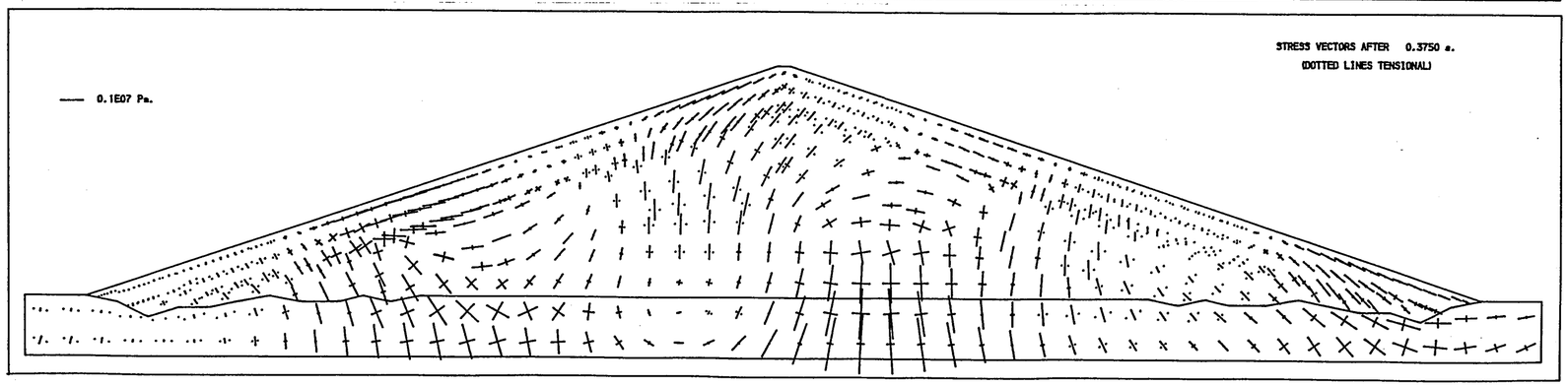

STRESS VECTORS AFTER 0.2500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

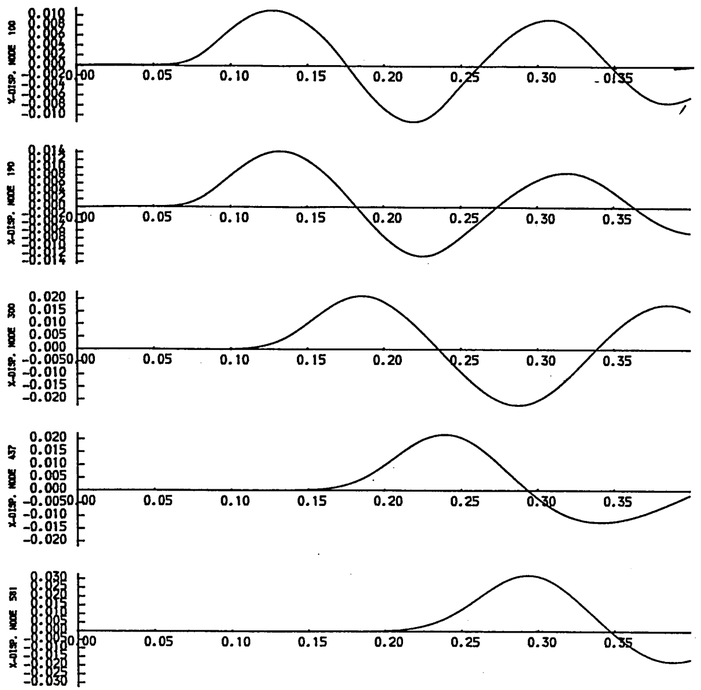
Time-displacement graphs and stress distributions for D2/7

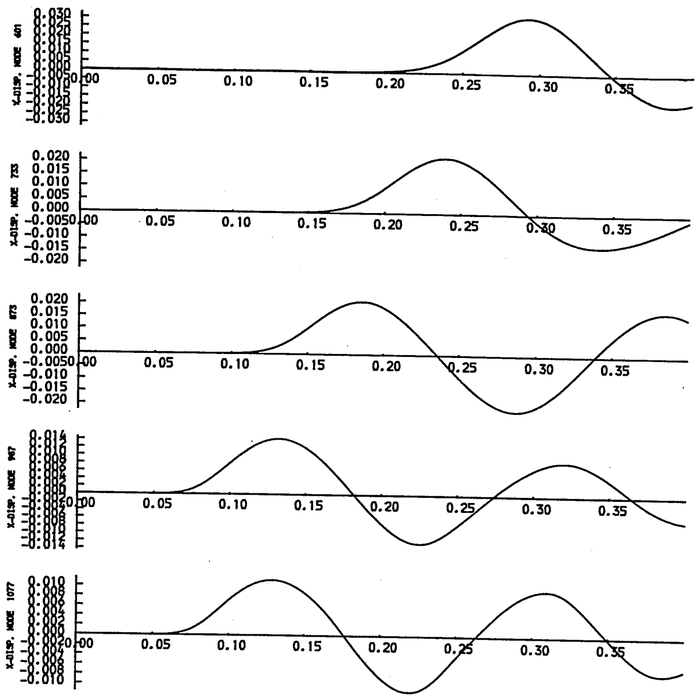
S-wave

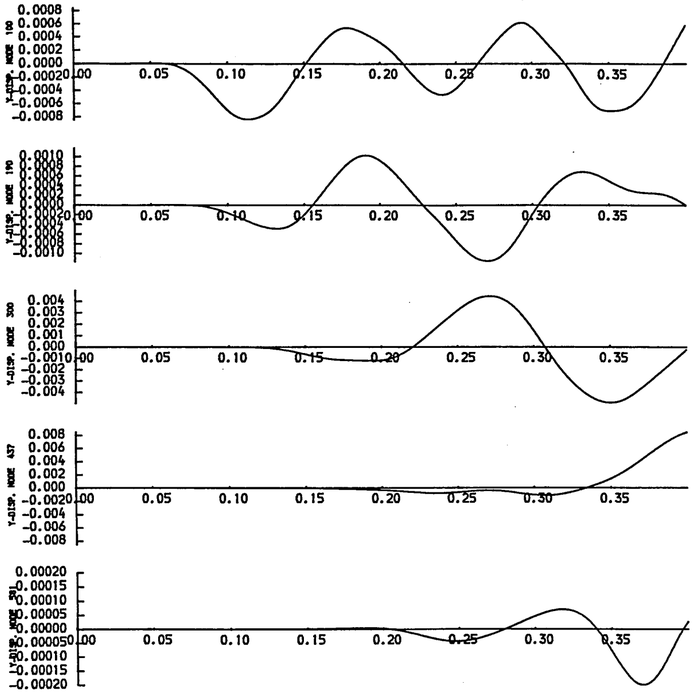
Angle of incidence 0^{o}

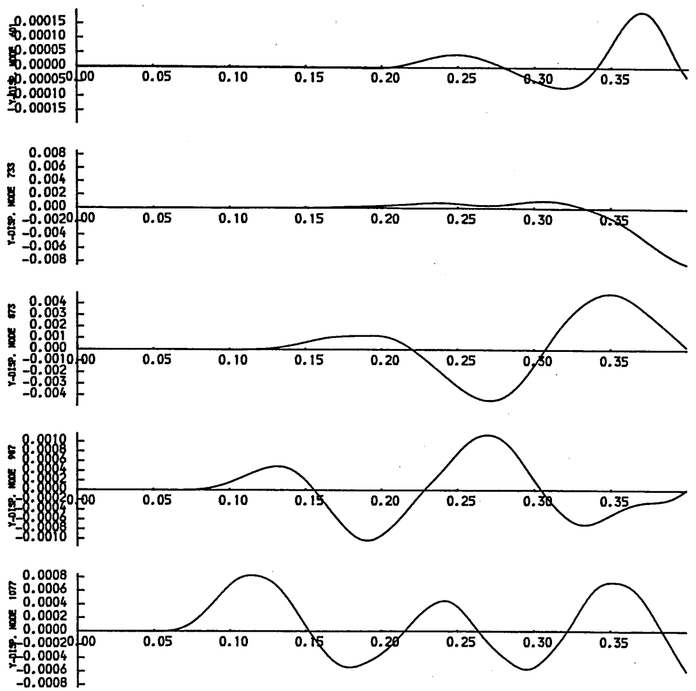
Base acceleration $\frac{1}{2}g$

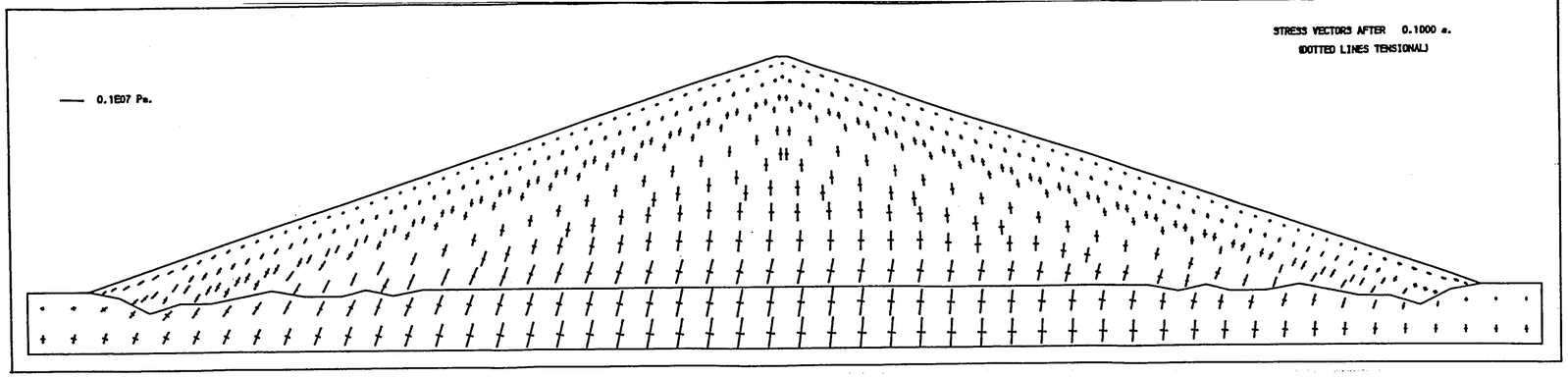
D2/7; S; 0; $\frac{1}{2}g$

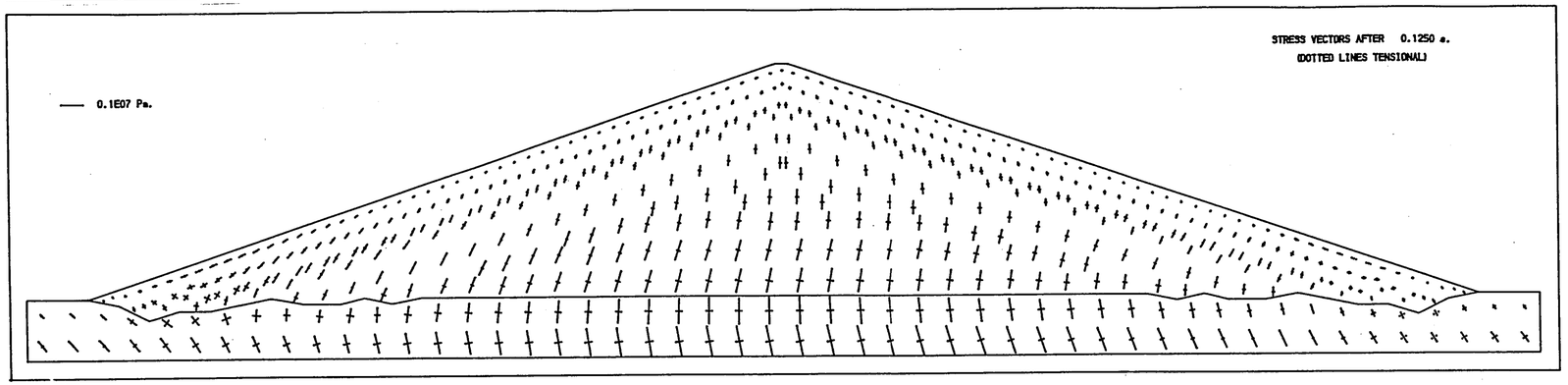

X-DISP, MODE 100
X-DISP, MODE 190
X-DISP, MODE 300
X-DISP, MODE 437
X-DISP, MODE 581
0.05
0.10
0.15
0.20
0.25
0.30
0.35

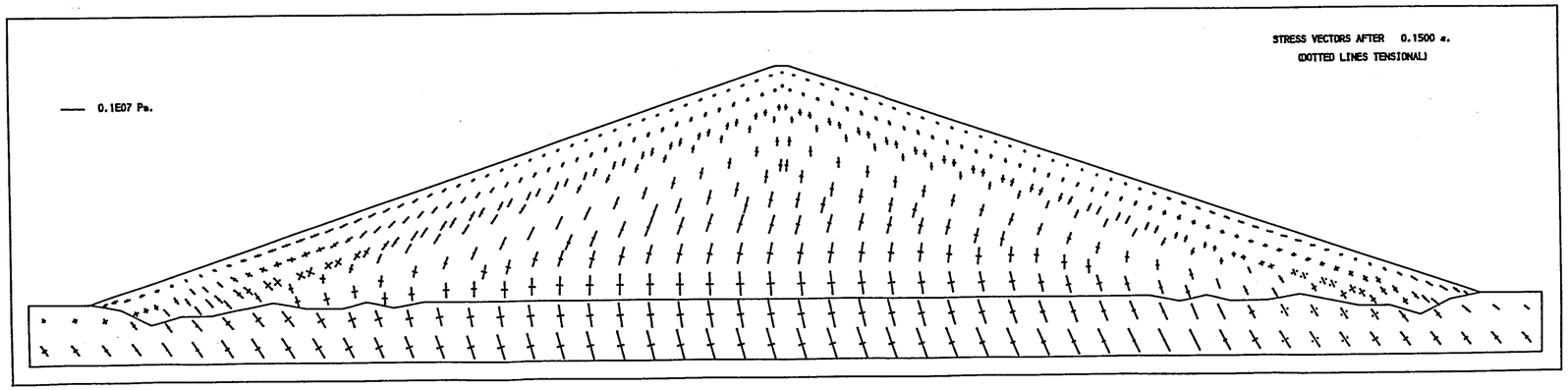

X-DISP, MODE 491
X-DISP, MODE 723
X-DISP, MODE 873
X-DISP, MODE 997
X-DISP, MODE 1077
0.05
0.10
0.15
0.20
0.25
0.30
0.35

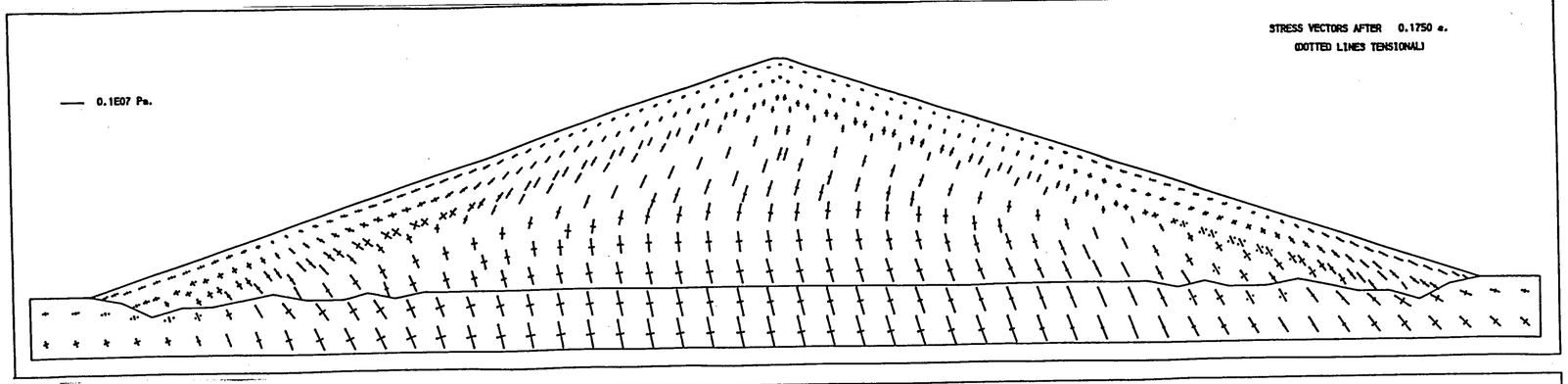

Y-DISP, MODE 100
0.0008
0.0006
0.0004
0.0002
0.0000
-0.0002
-0.0004
-0.0006
-0.0008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 190
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
-0.0002
-0.0004
-0.0006
-0.0008
-0.0010
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 300
0.004
0.003
0.002
0.001
0.000
-0.0010
-0.002
-0.003
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 457
0.008
0.006
0.004
0.002
0.000
-0.0020
-0.004
-0.006
-0.008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 581
0.00020
0.00015
0.00010
0.00005
0.00000
-0.00005
-0.00010
-0.00015
-0.00020
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35

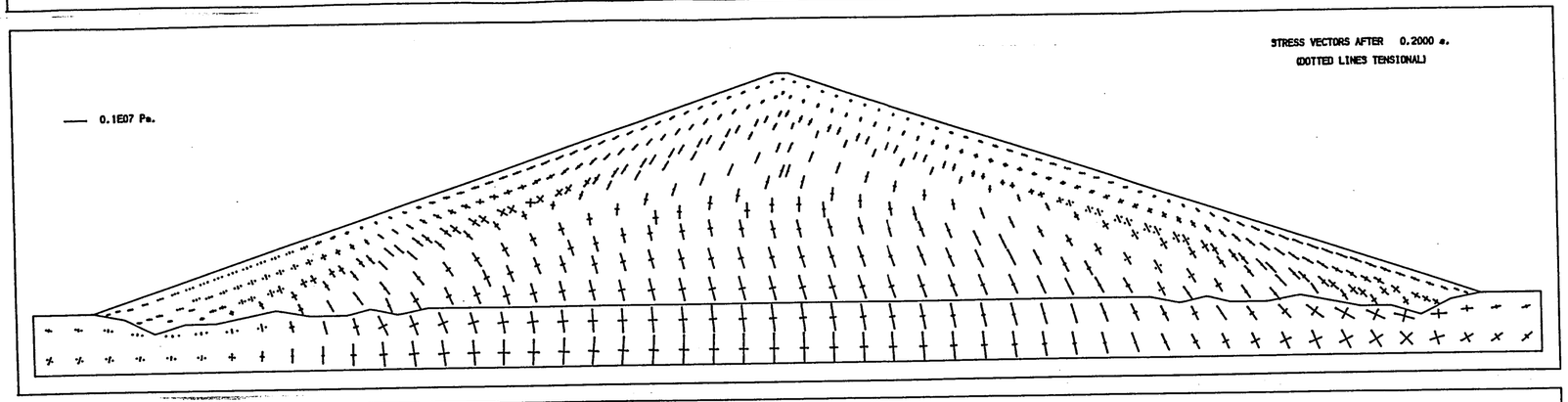

Y-DISP, MODE 651
0.00015
0.00010
0.00005
0.00000
-0.00005
-0.00010
-0.00015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 733
0.008
0.006
0.004
0.002
0.000
-0.0020
-0.004
-0.006
-0.008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 873
0.004
0.003
0.002
0.001
0.000
-0.0010
-0.002
-0.003
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 947
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
-0.0020
-0.0004
-0.0006
-0.0008
-0.0010
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35
Y-DISP, MODE 1077
0.0008
0.0006
0.0004
0.0002
0.0000
-0.0020
-0.0004
-0.0006
-0.0008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35

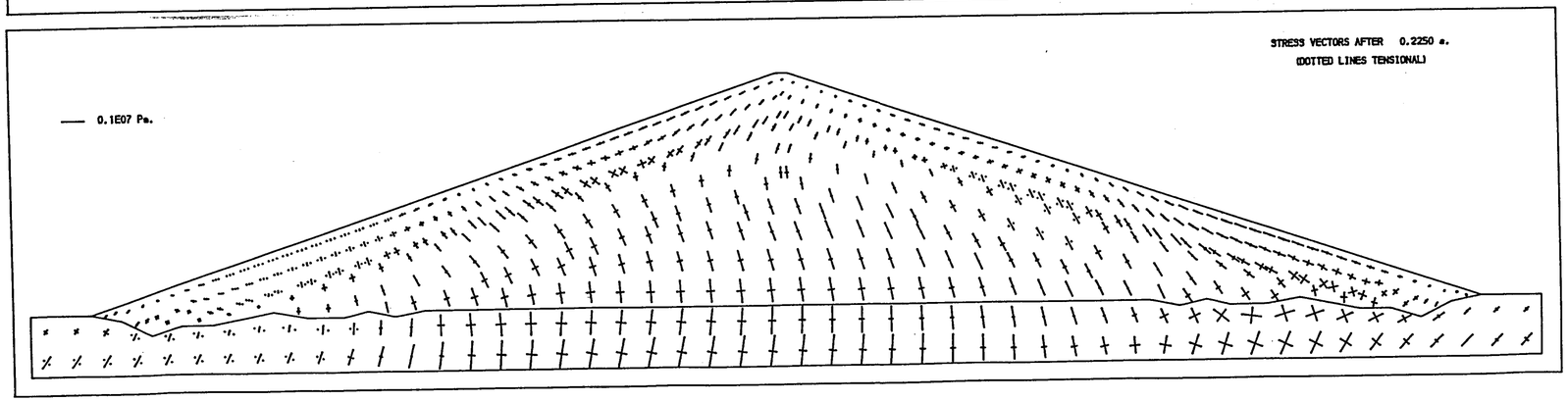

STRESS VECTORS AFTER 0.1000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

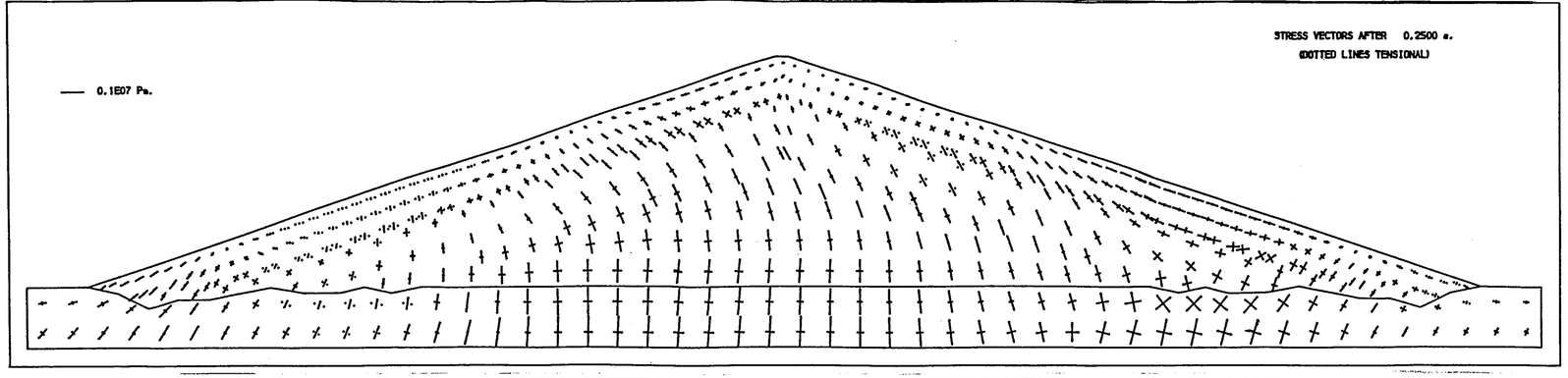

STRESS VECTORS AFTER 0.1250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

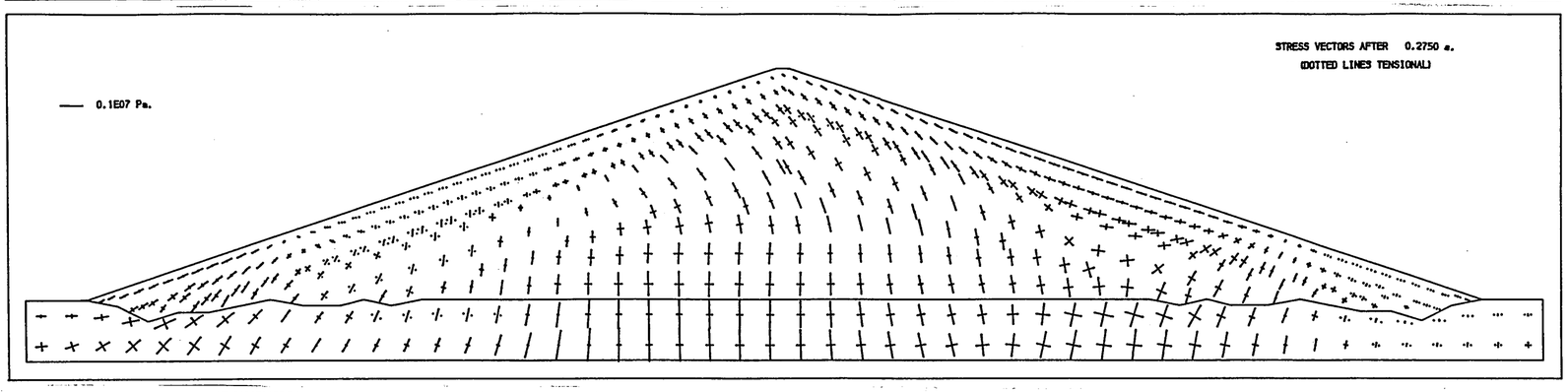

STRESS VECTORS AFTER 0.1500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

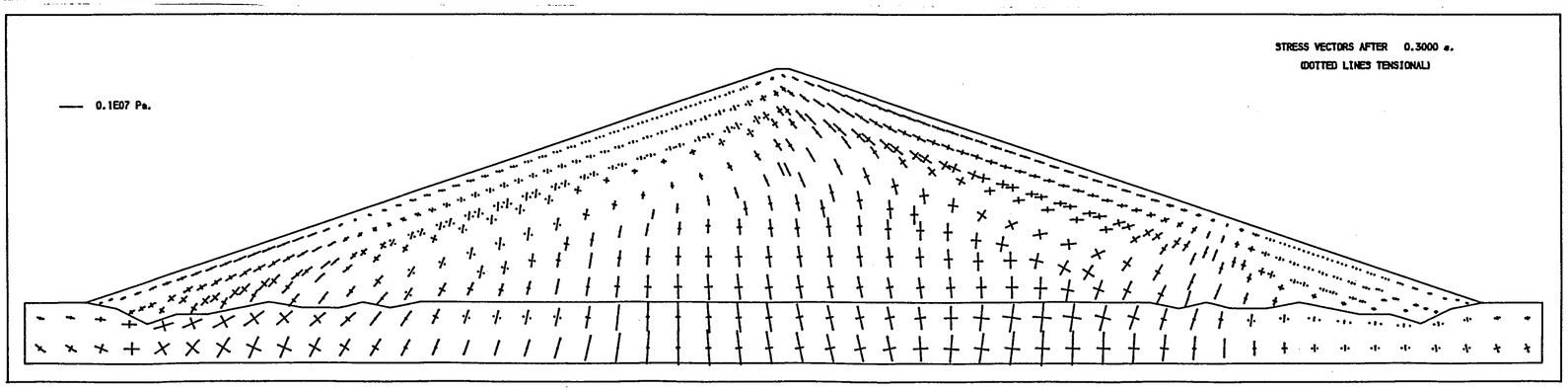

STRESS VECTORS AFTER 0.1750 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

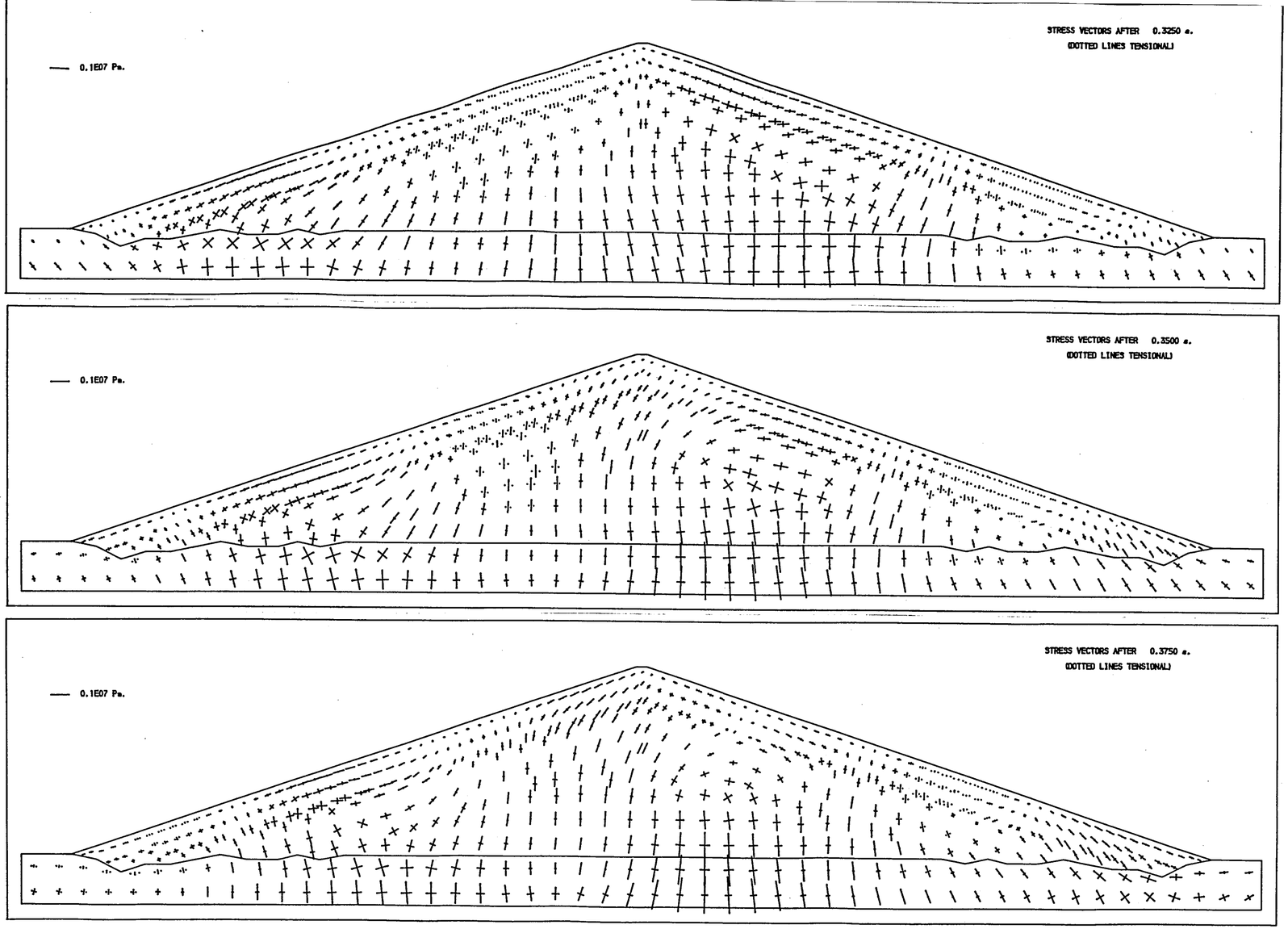

STRESS VECTORS AFTER 0.2000 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2250 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2500 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.2750 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3000 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

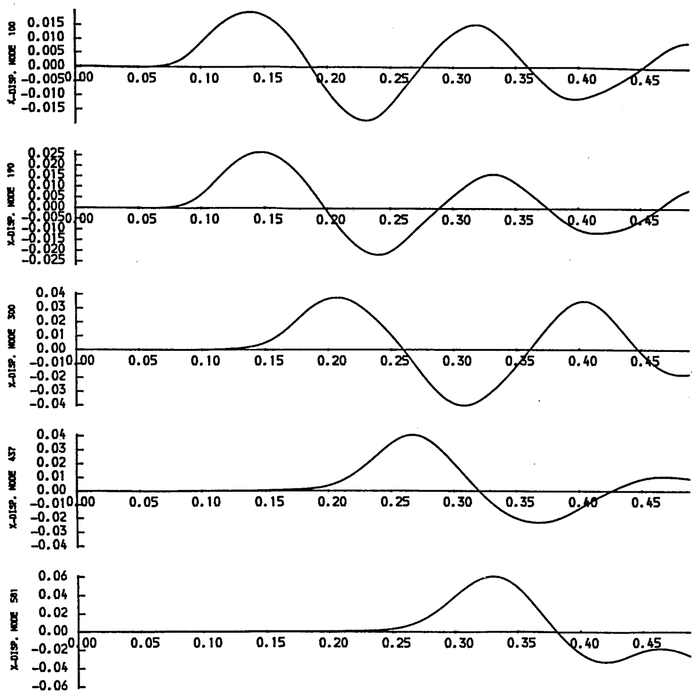
Time-displacement graphs and stress distributions for D2/8

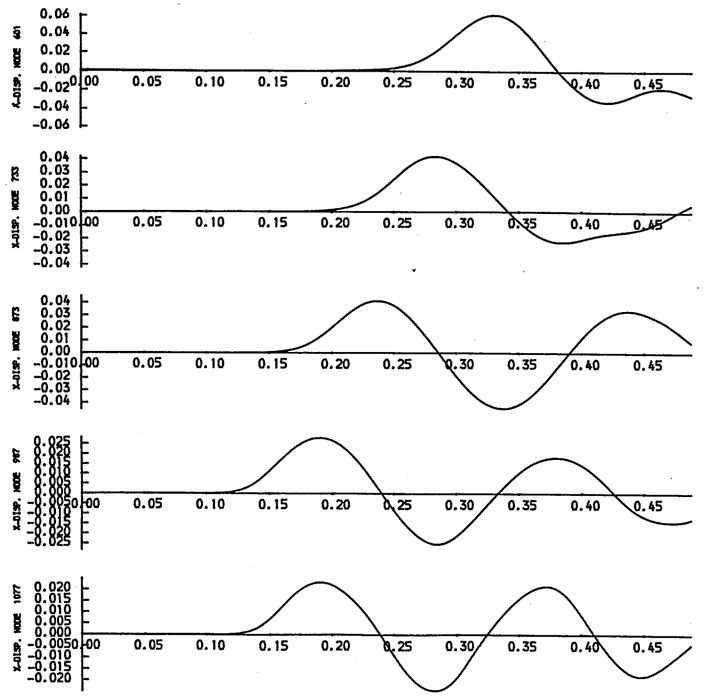
S-wave

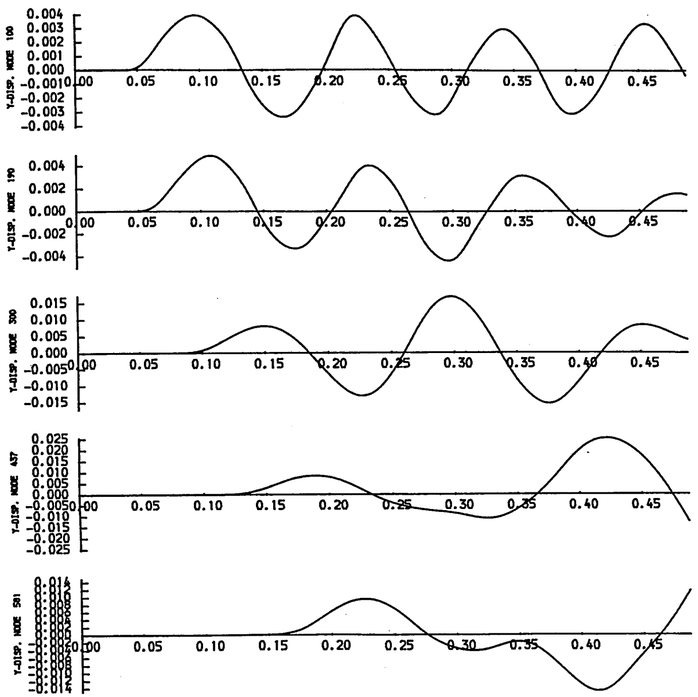
Angle of incidence 10^{o}

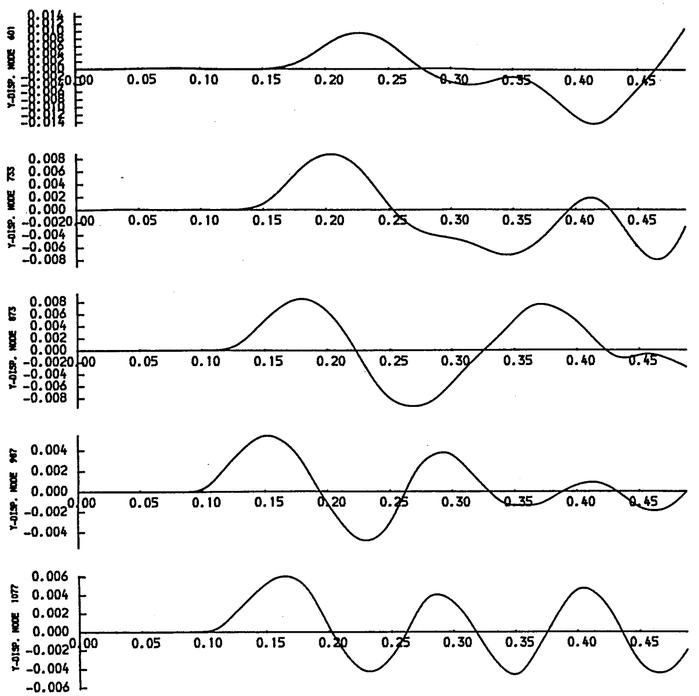
Base acceleration g

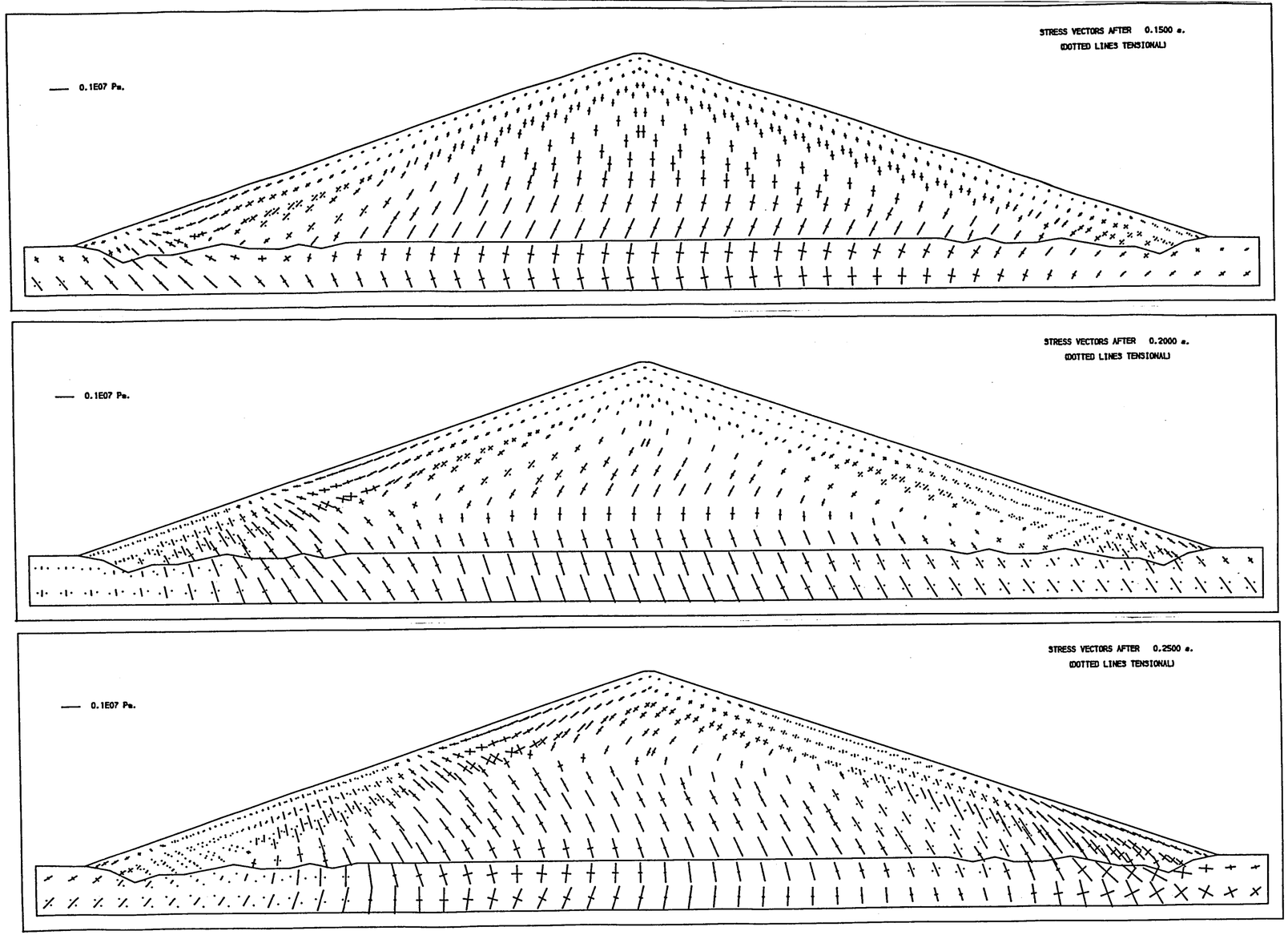
D2/8; S; 10; g

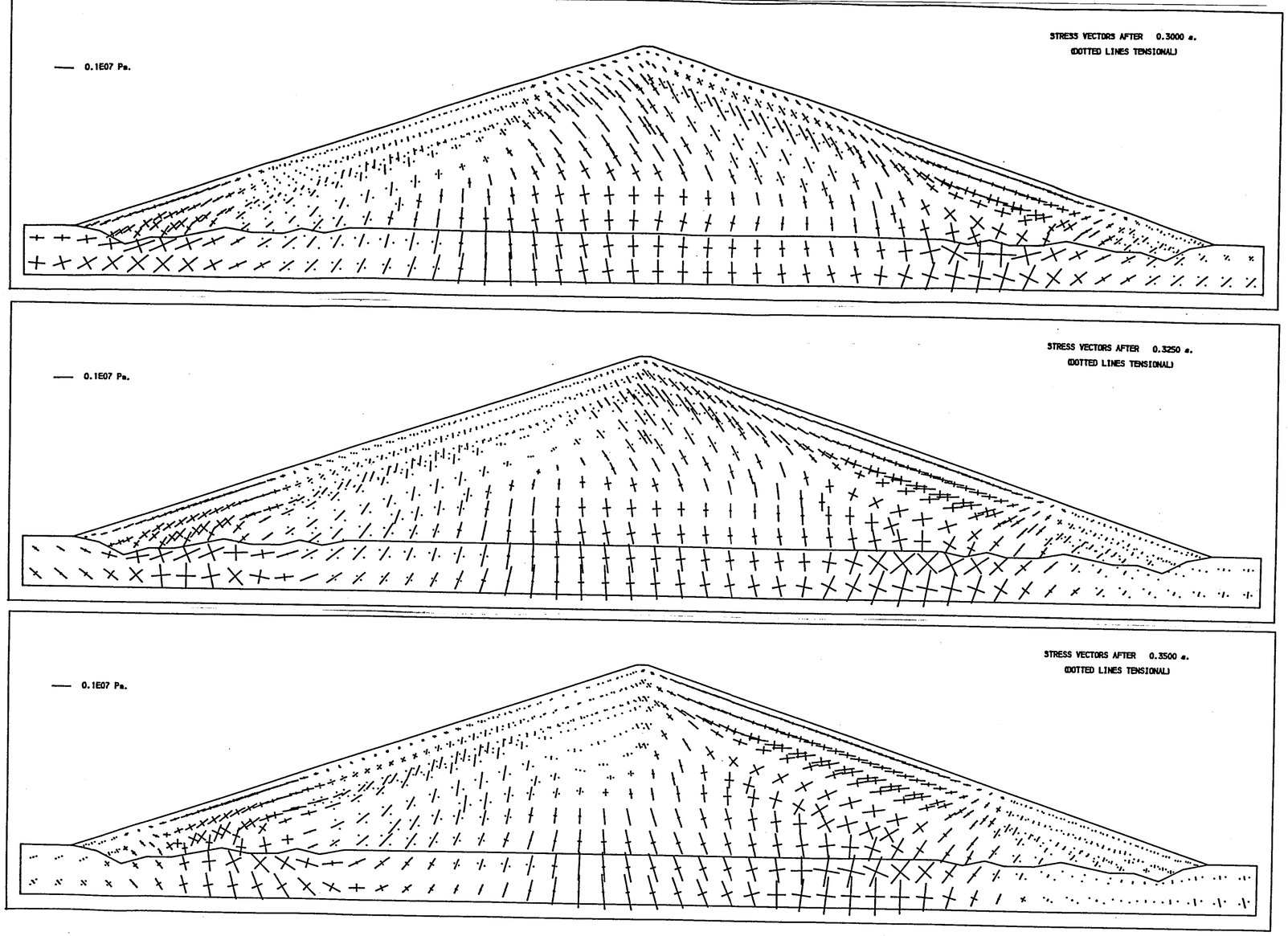

X-DISP, MODE 190
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 190
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020
−0.025
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 300
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 437
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 581
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45

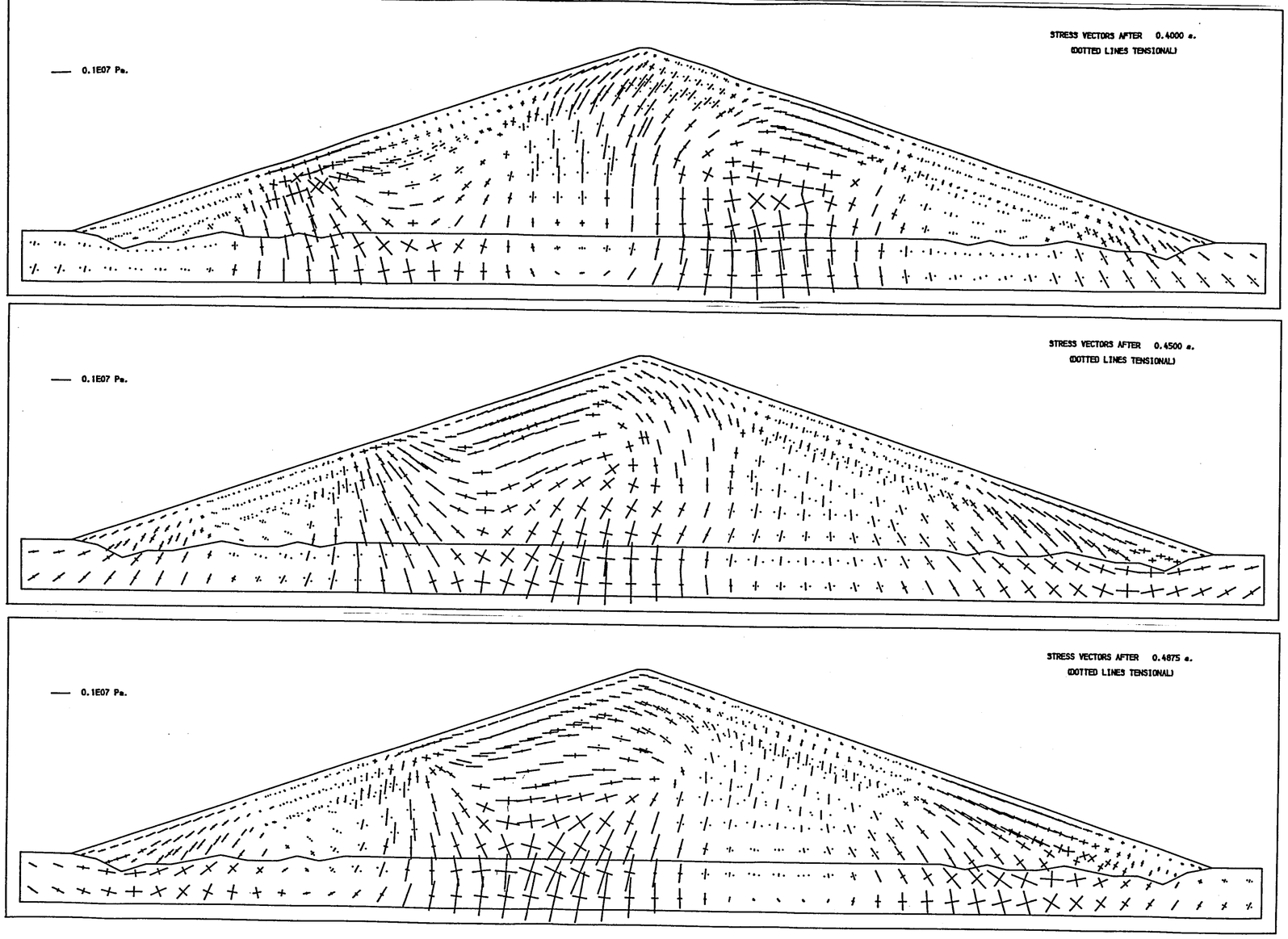

X-DISP, MODE 401
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 733
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 873
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 997
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020
−0.025
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
X-DISP, MODE 1077
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45


Y-DISP. MODE 100
0.004
0.003
0.002
0.001
0.000
-0.001
-0.002
-0.003
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 190
0.004
0.002
0.000
-0.002
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 300
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 437
0.025
0.020
0.015
0.010
0.005
0.000
-0.005
-0.010
-0.015
-0.020
-0.025
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 591
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45


Y-DISP. MODE 401
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 733
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 873
0.008
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
-0.008
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 947
0.004
0.002
0.000
-0.002
-0.004
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45
Y-DISP. MODE 1077
0.006
0.004
0.002
0.000
-0.002
-0.004
-0.006
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45


STRESS VECTORS AFTER 0.1500 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.2000 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.2500 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

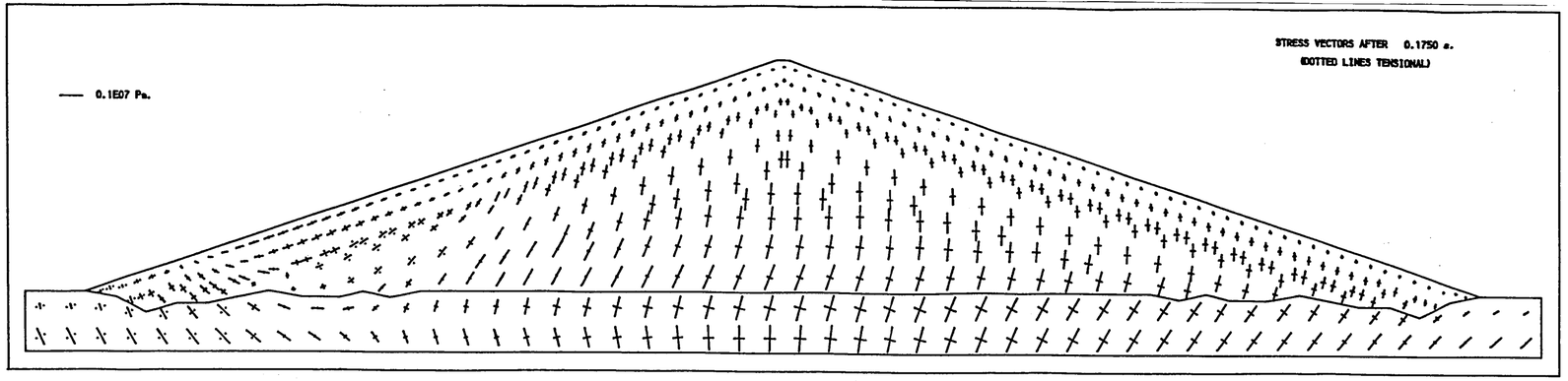

STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.4500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.4875 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

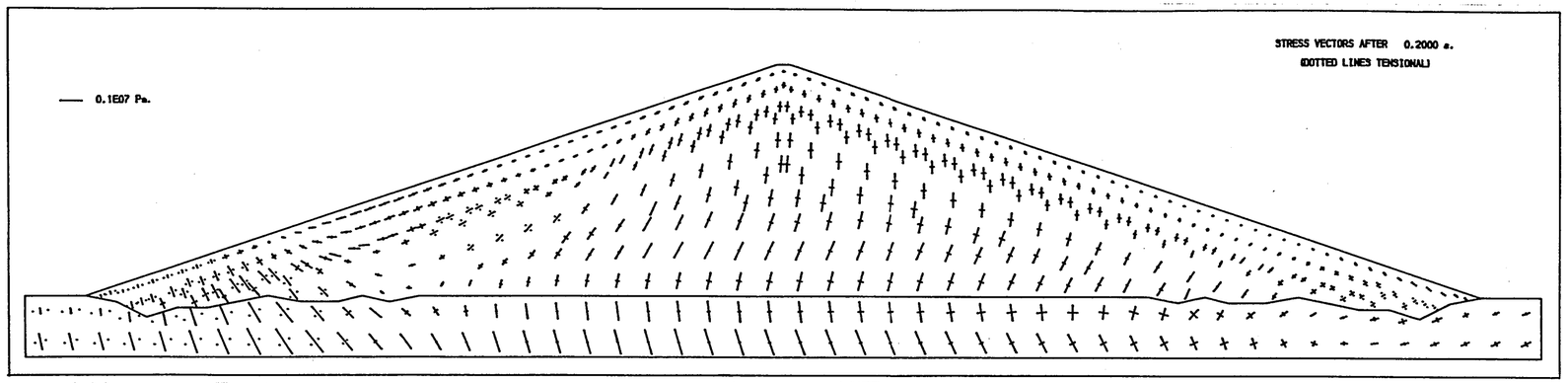
Stress distributions for D2/9

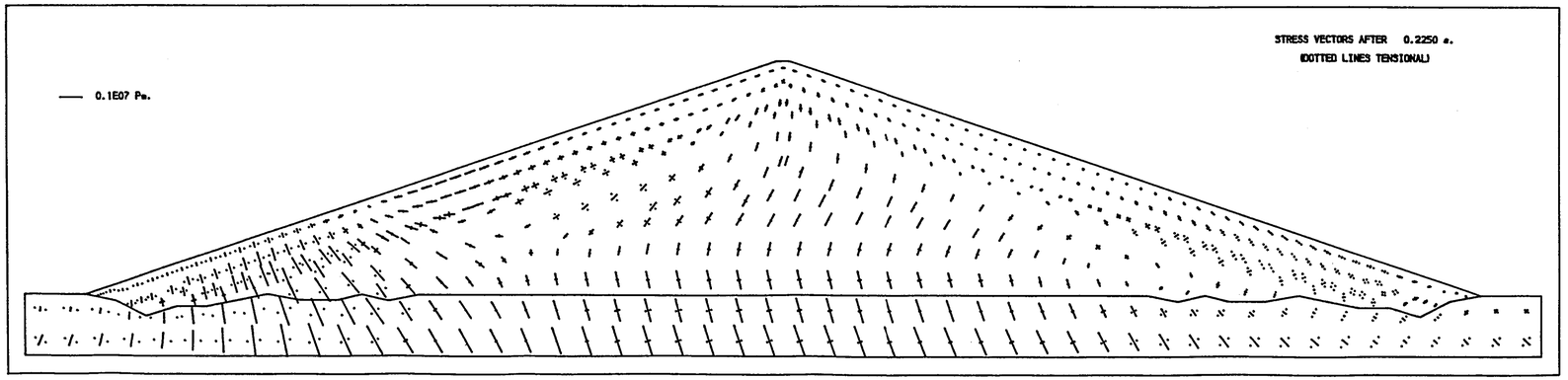
S-wave

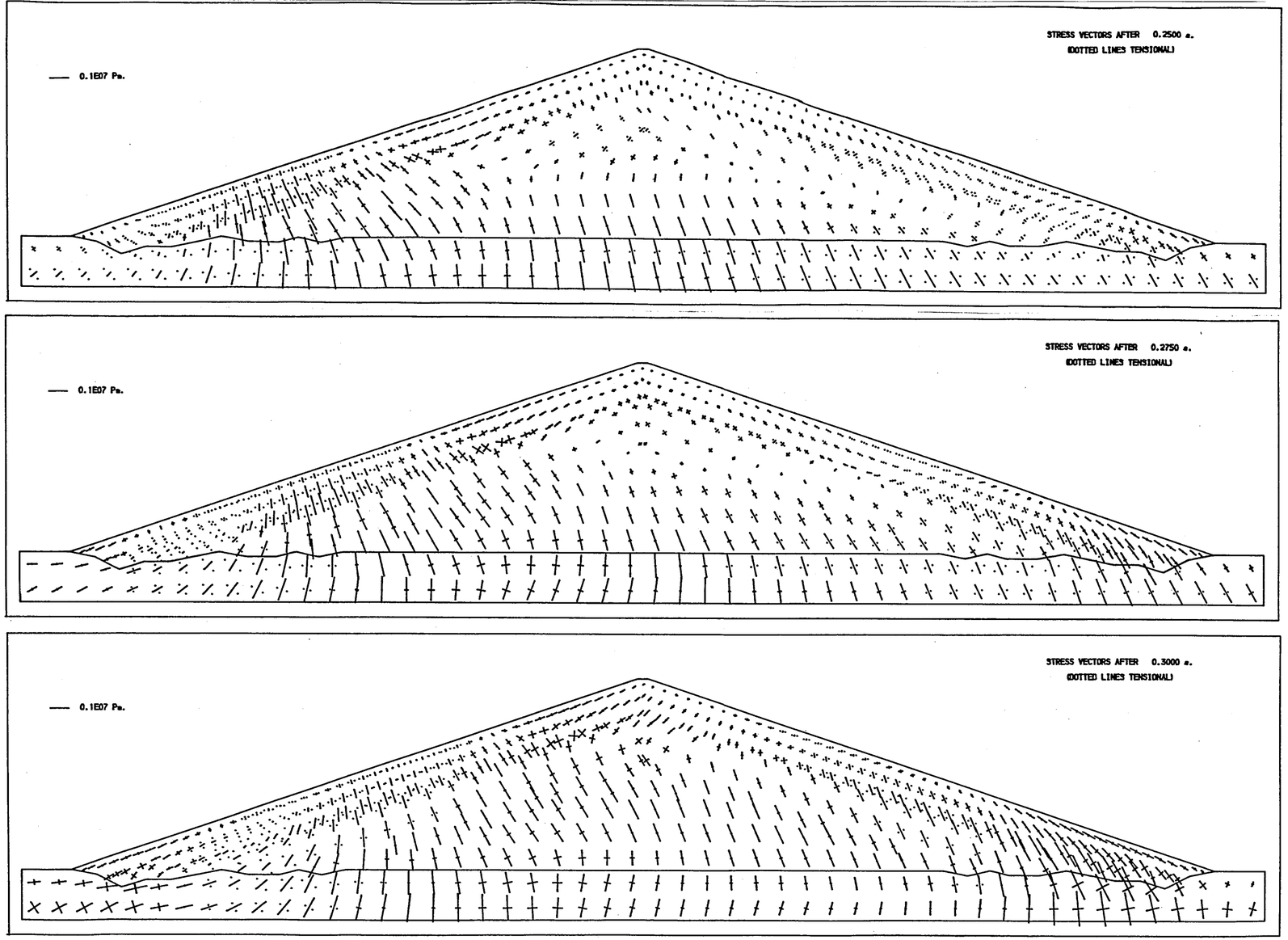
Angle of incidence 20^{o}

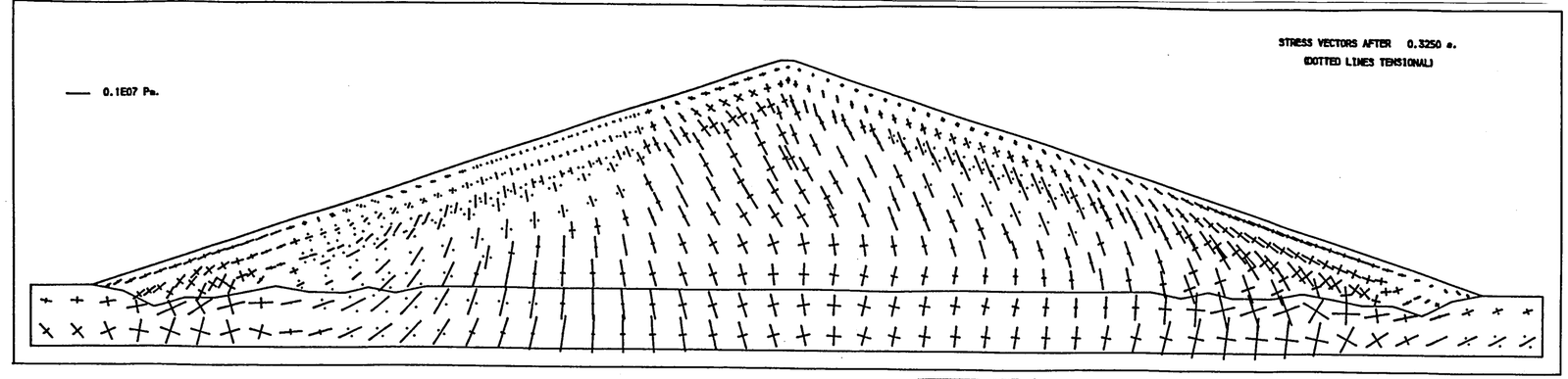
Base acceleration g

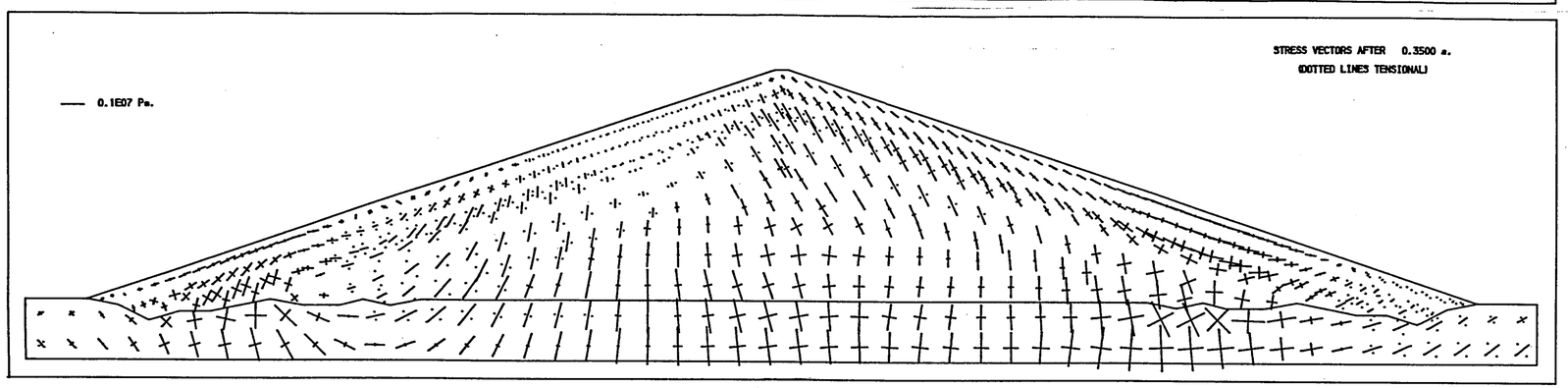

STRESS VECTORS AFTER 0.1750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

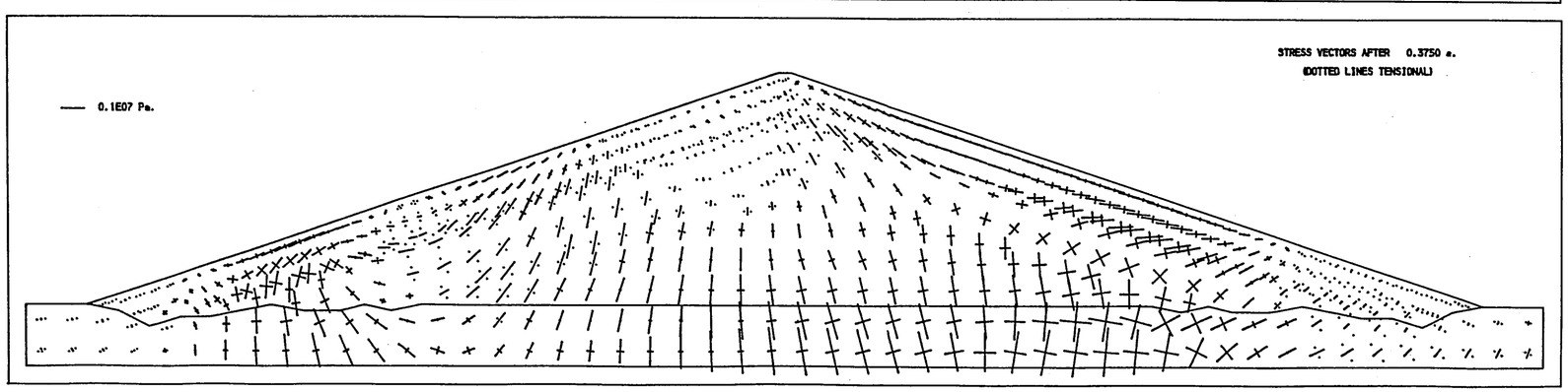

STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

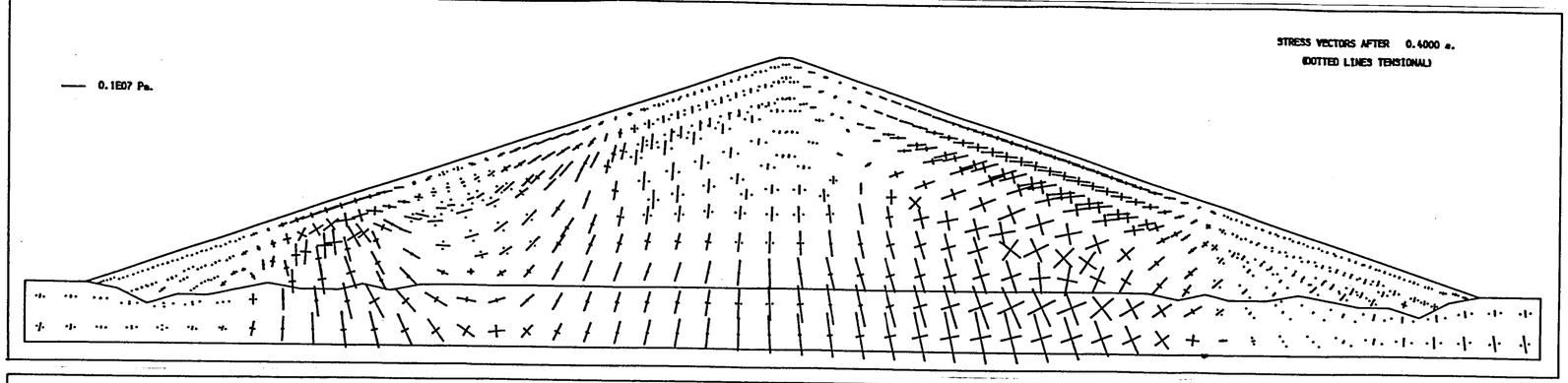

STRESS VECTORS AFTER 0.2250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

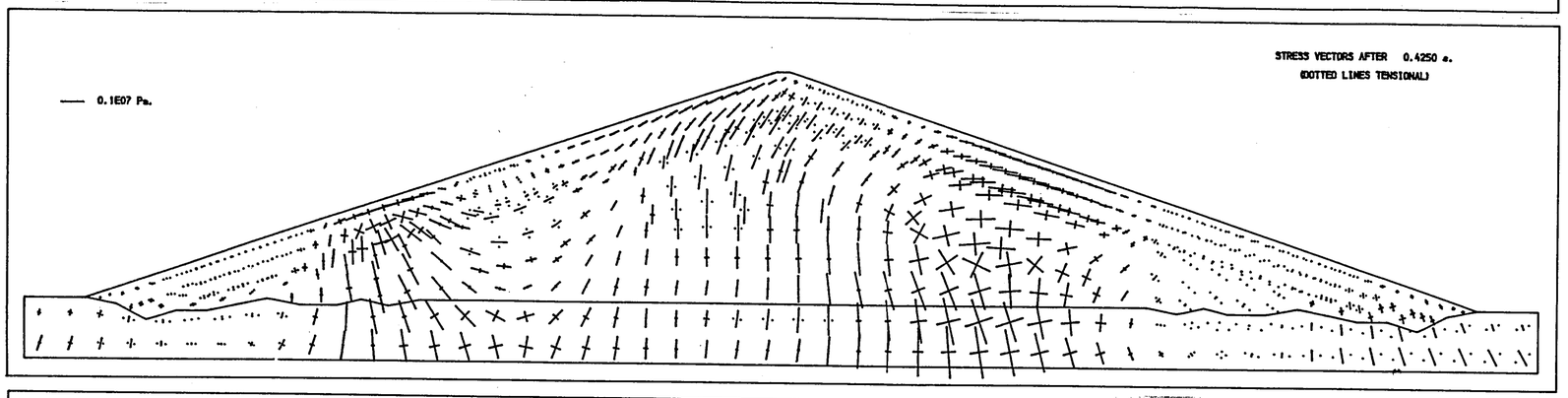

STRESS VECTORS AFTER 0.2500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.2750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

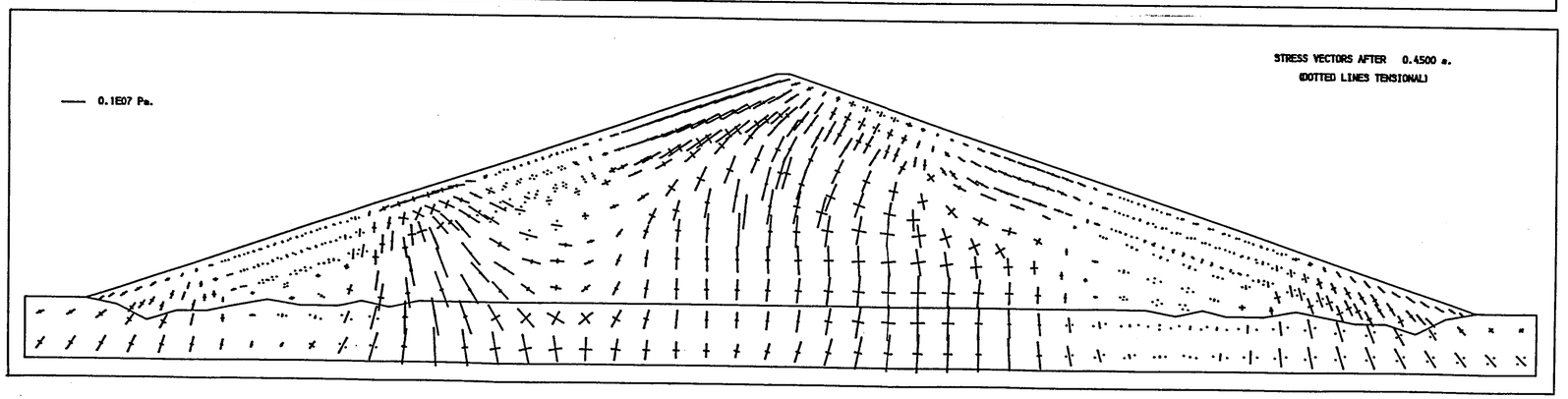

STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

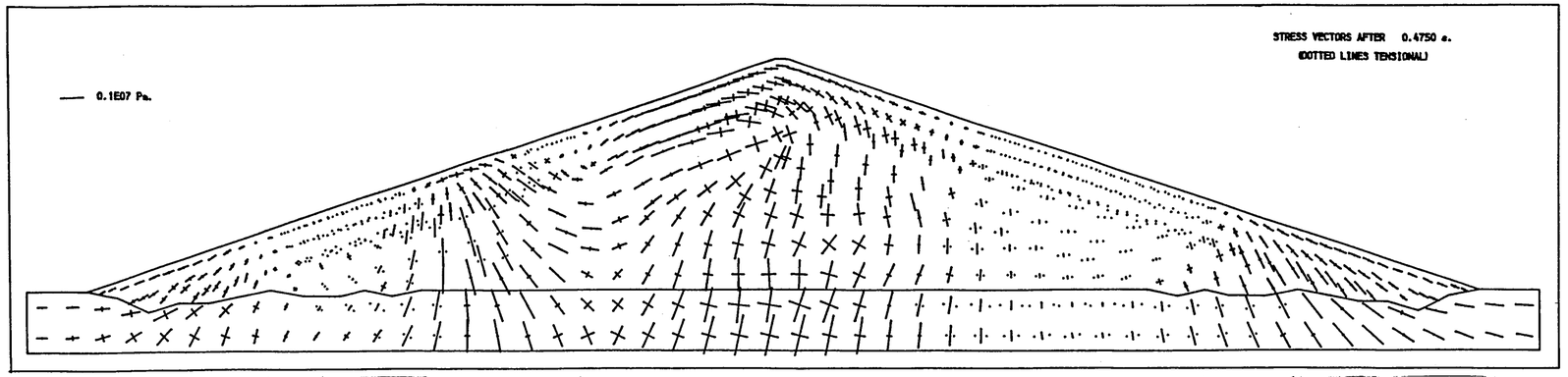

STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

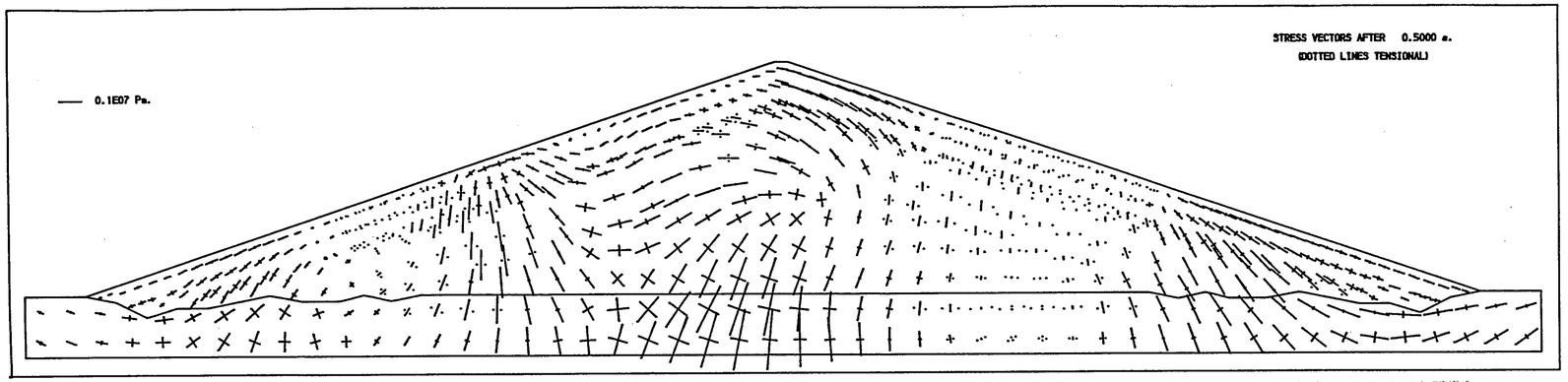

STRESS VECTORS AFTER 0.3750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

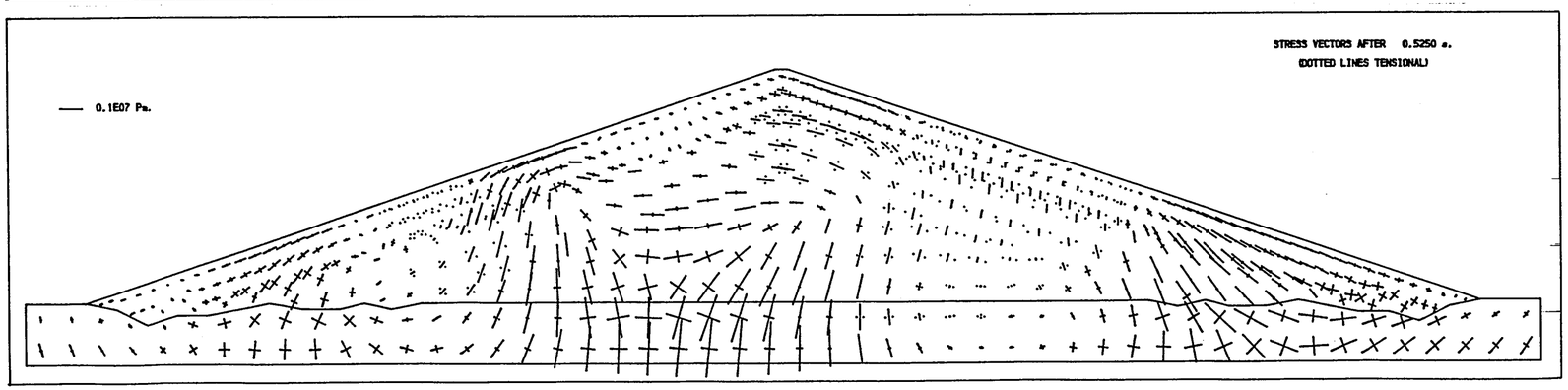

STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

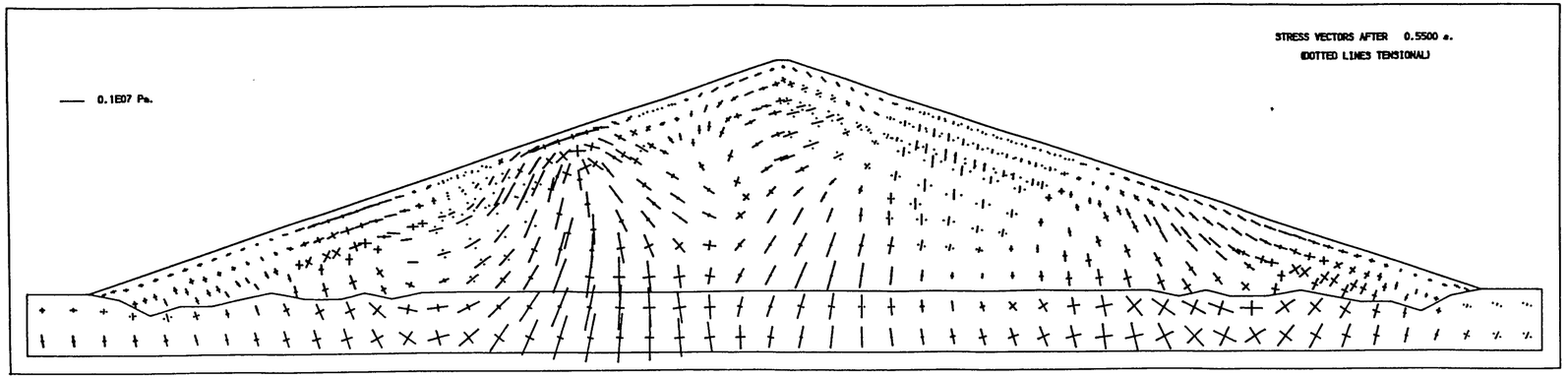

STRESS VECTORS AFTER 0.4250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

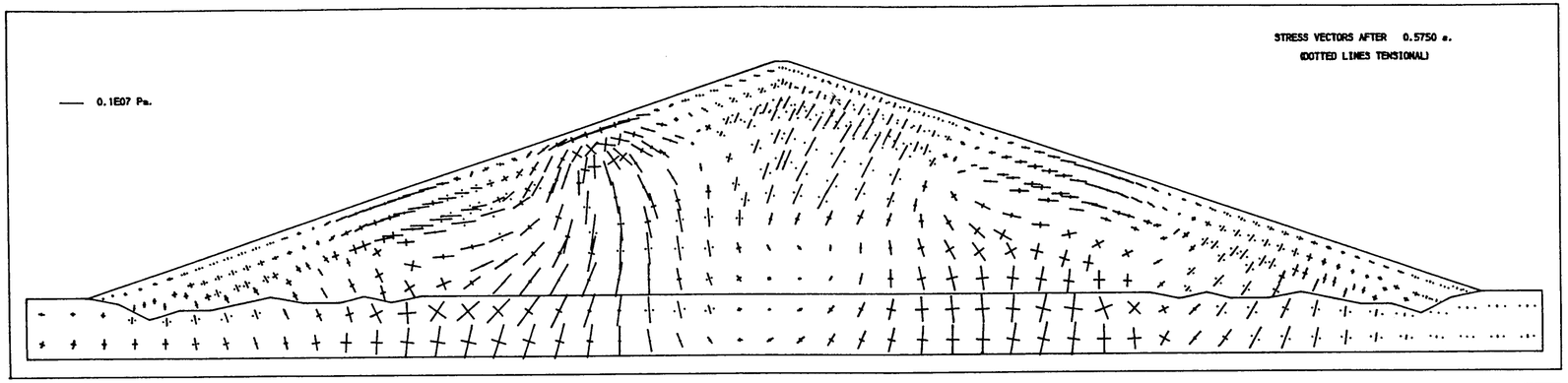

STRESS VECTORS AFTER 0.4500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

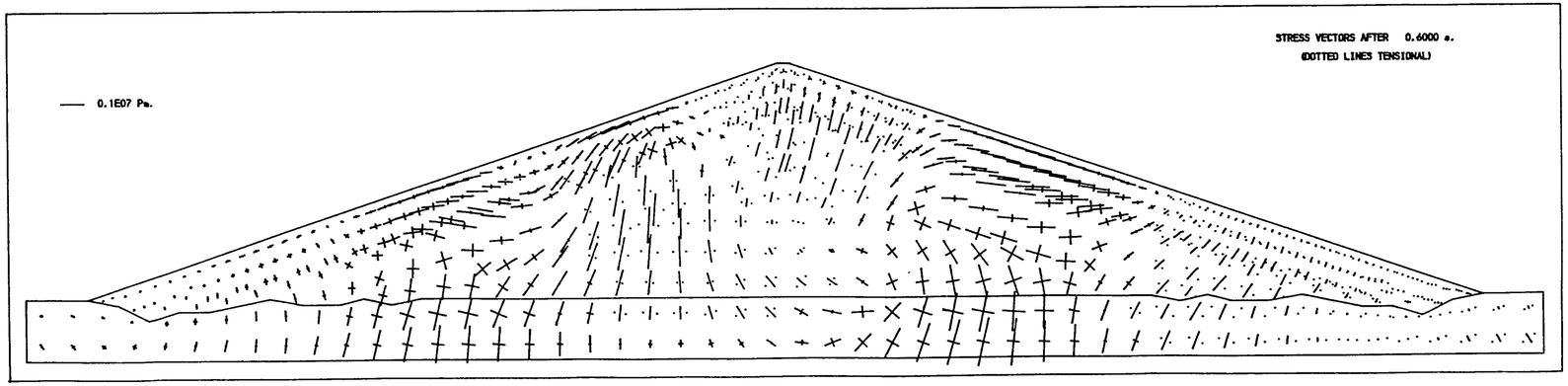

STRESS VECTORS AFTER 0.4750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.6000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

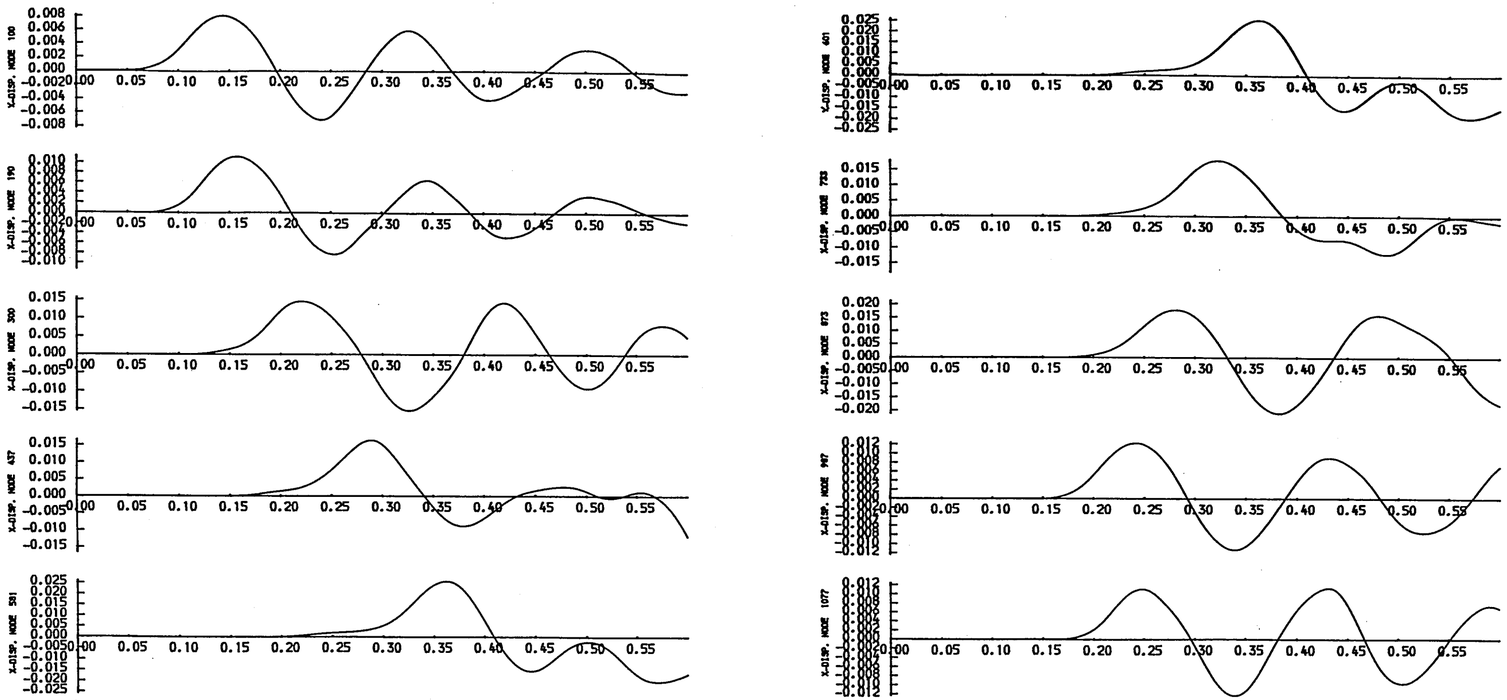
Time-displacement graphs and stress distributions for D2/10

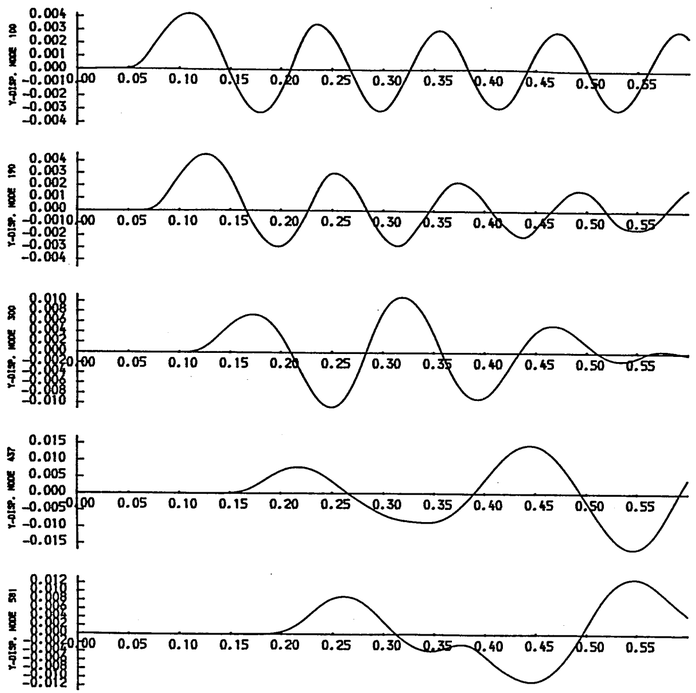
S-wave

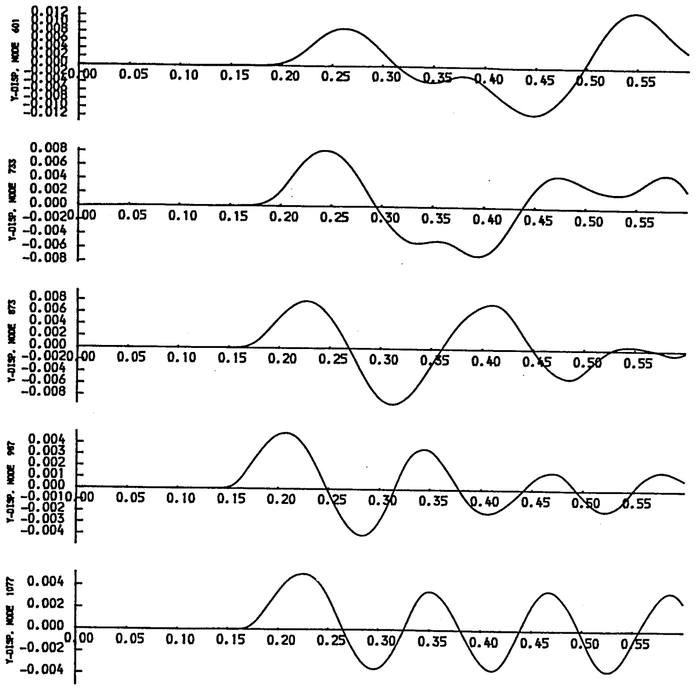
Angle of incidence 20^{o}

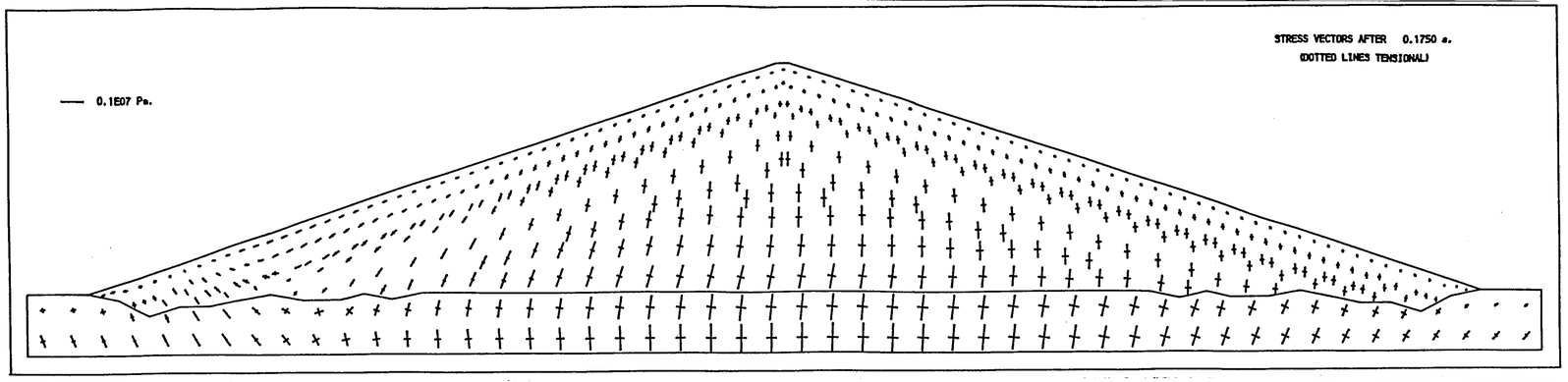
Base acceleration $\frac{1}{2}g$

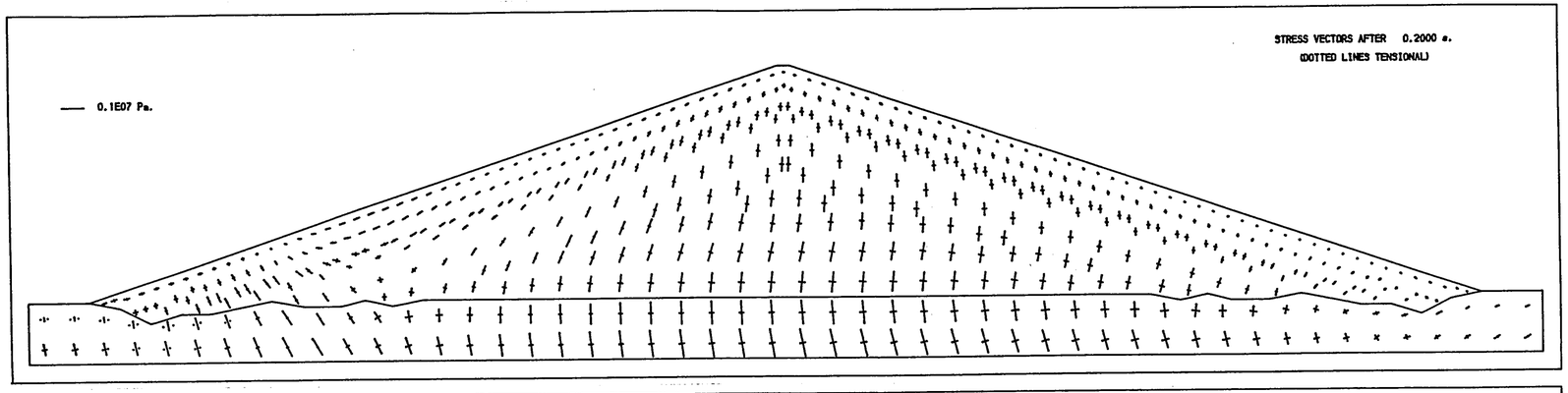
D2/10; S; 20; $\frac{1}{2}g$

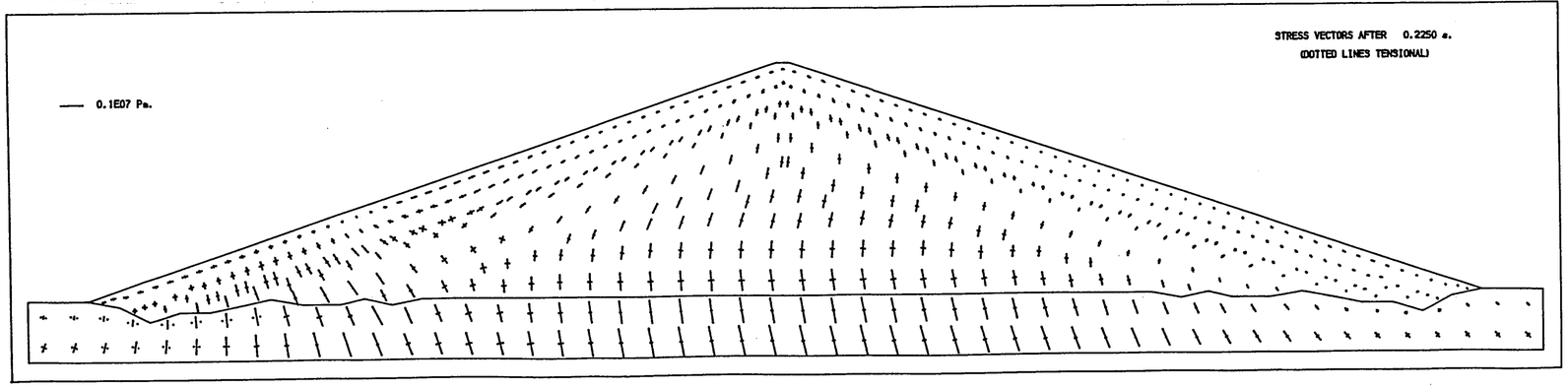

X-DISP. MODE 100
X-DISP. MODE 190
X-DISP. MODE 300
X-DISP. MODE 437
X-DISP. MODE 591
X-DISP. MODE 401
X-DISP. MODE 723
X-DISP. MODE 873
X-DISP. MODE 947
X-DISP. MODE 1077
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50 0.55

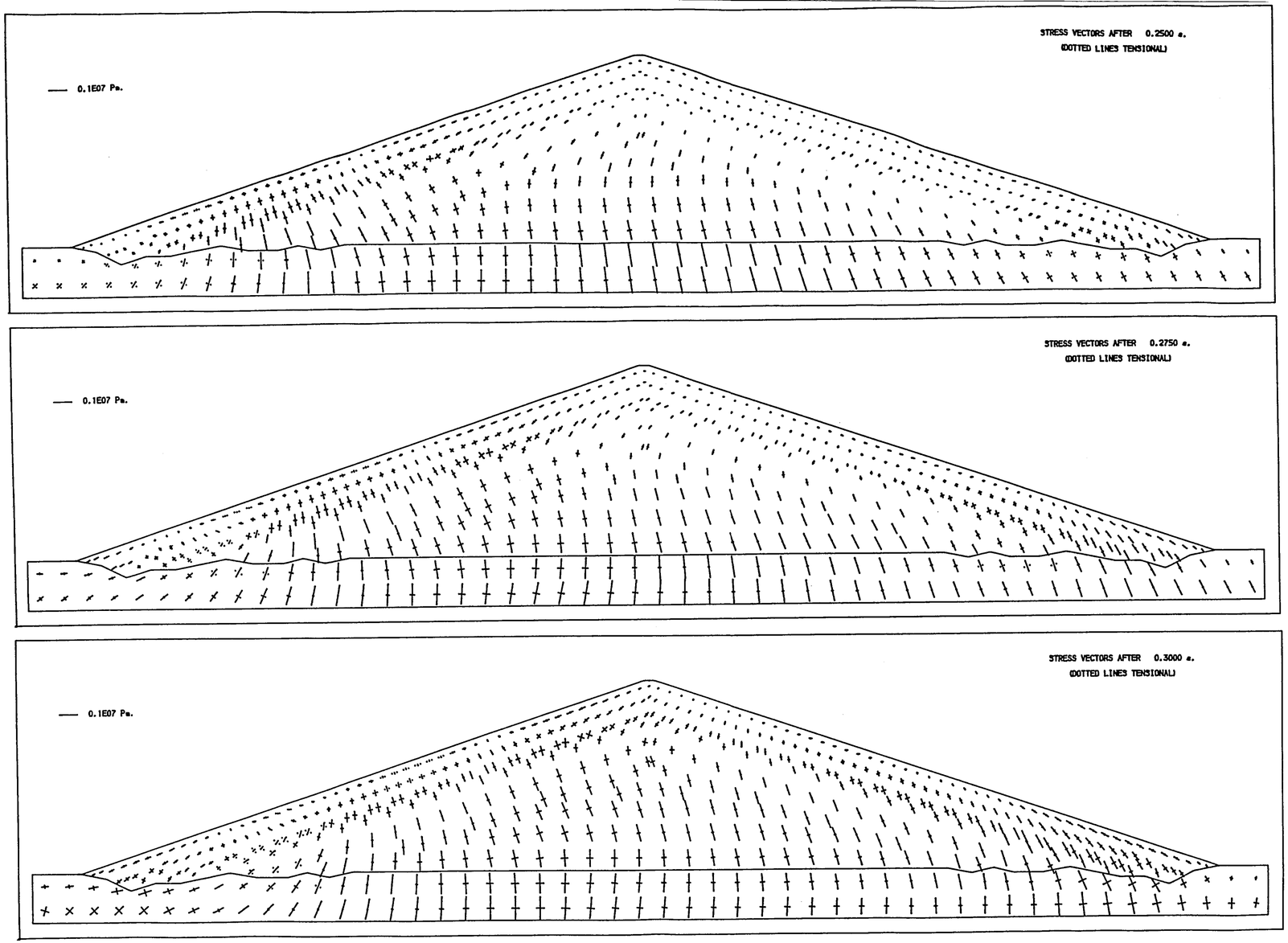


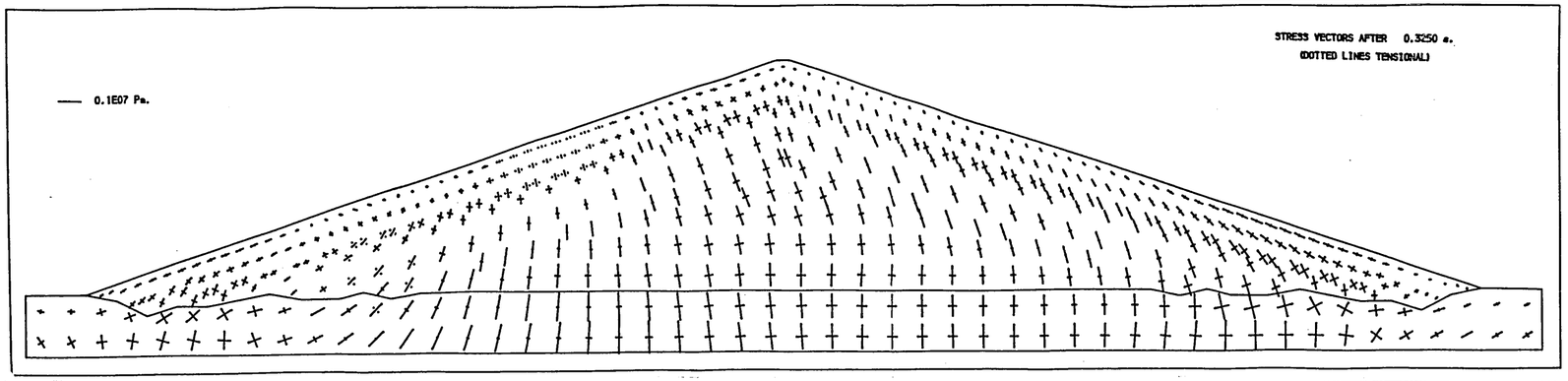


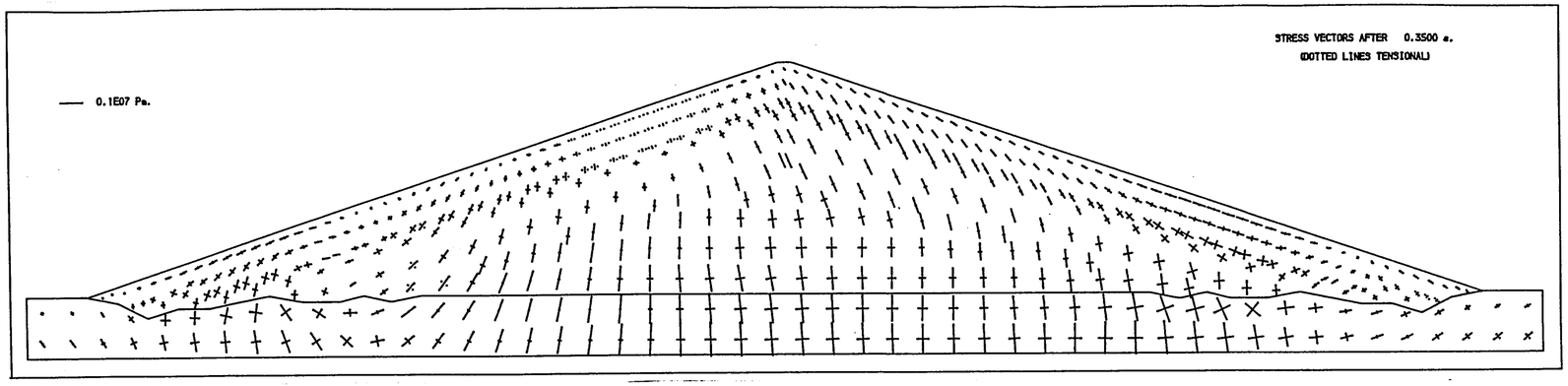

STRESS VECTORS AFTER 0.1750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

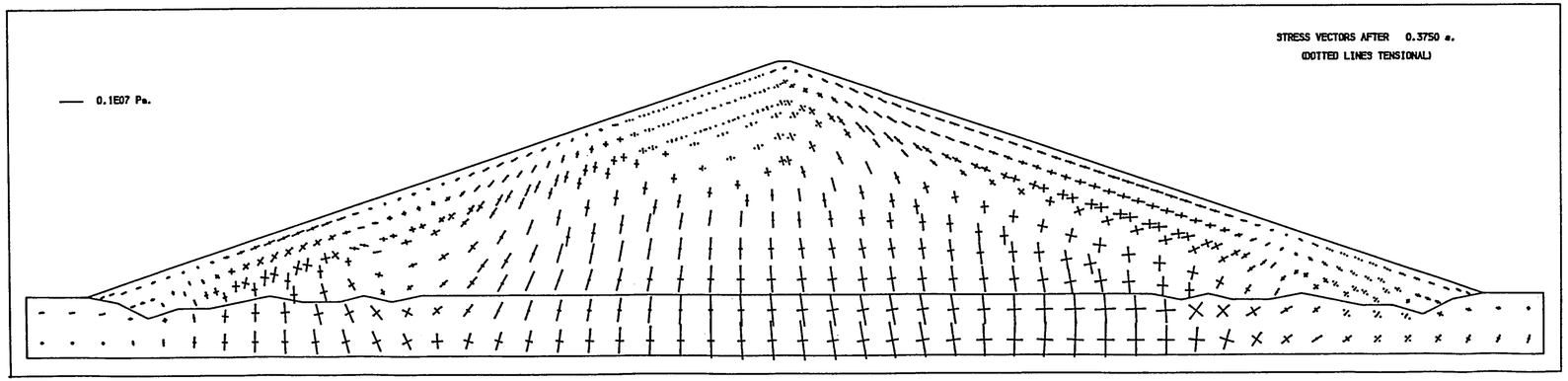

STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

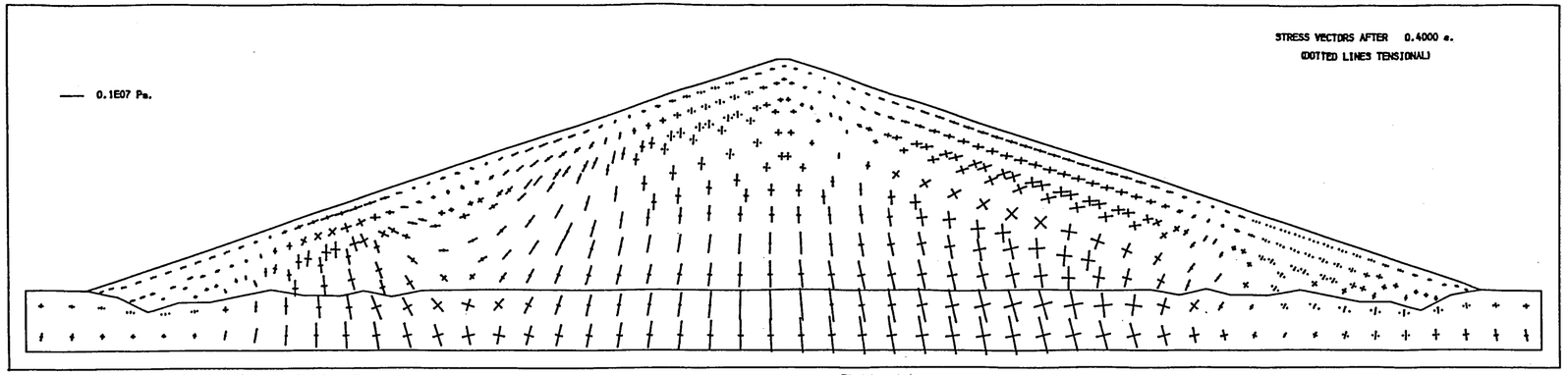

STRESS VECTORS AFTER 0.2250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

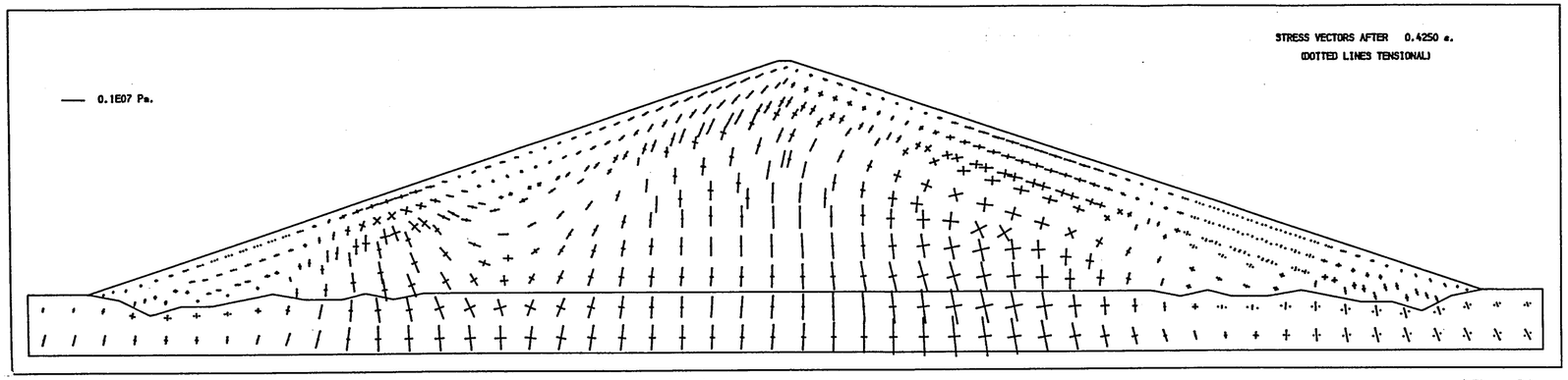

STRESS VECTORS AFTER 0.2500 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.2750 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3000 e.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

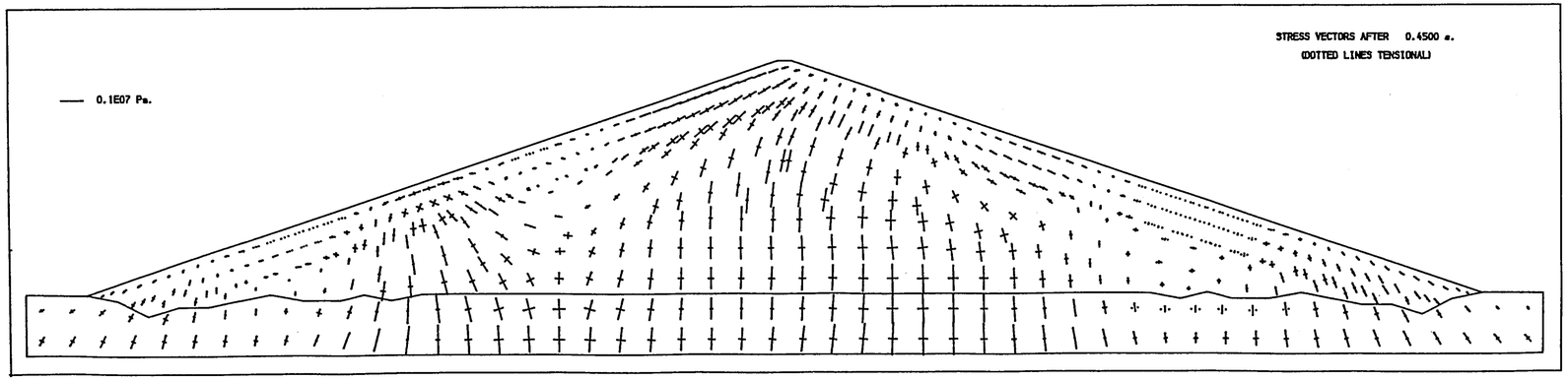

STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

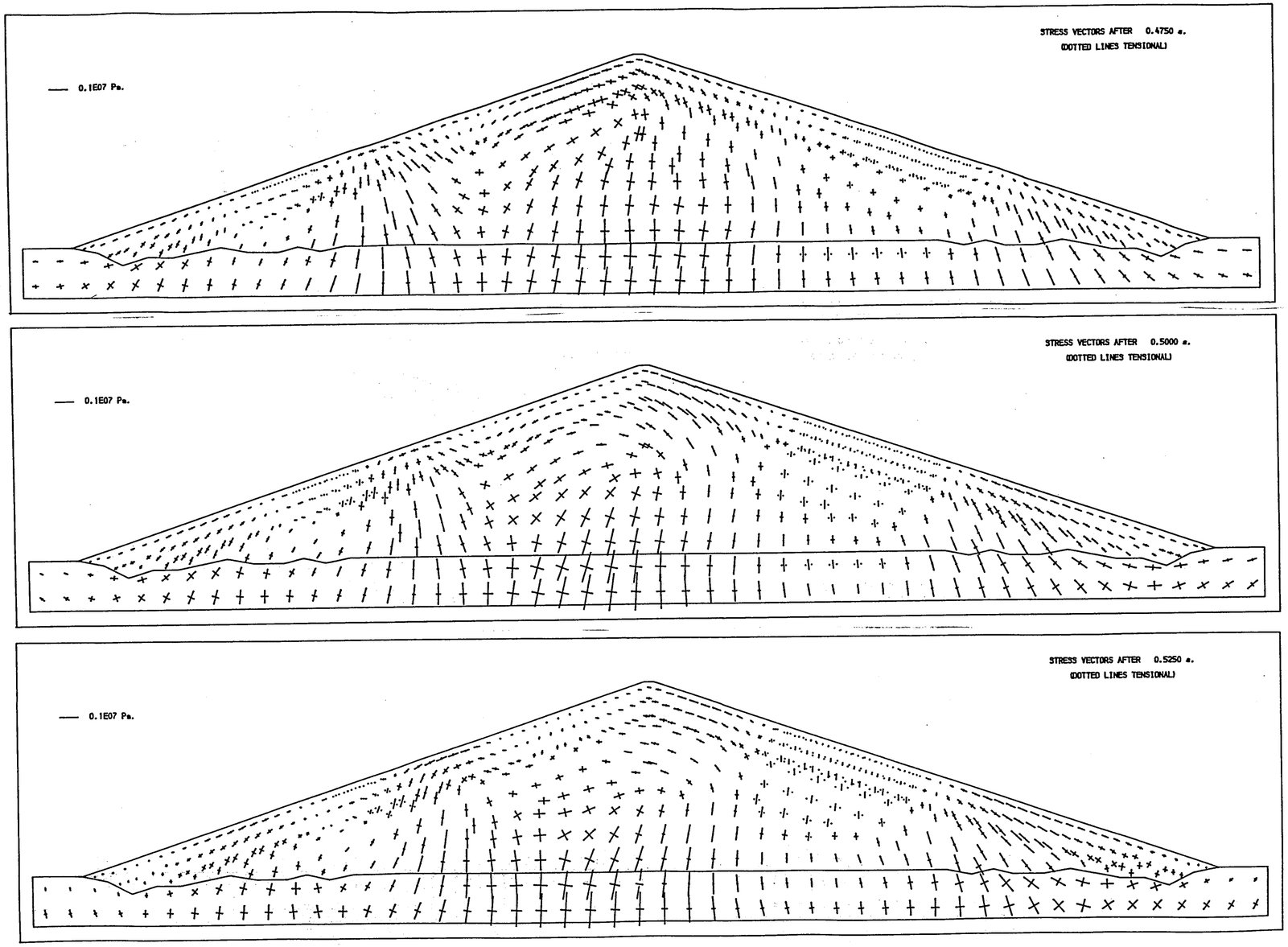

STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

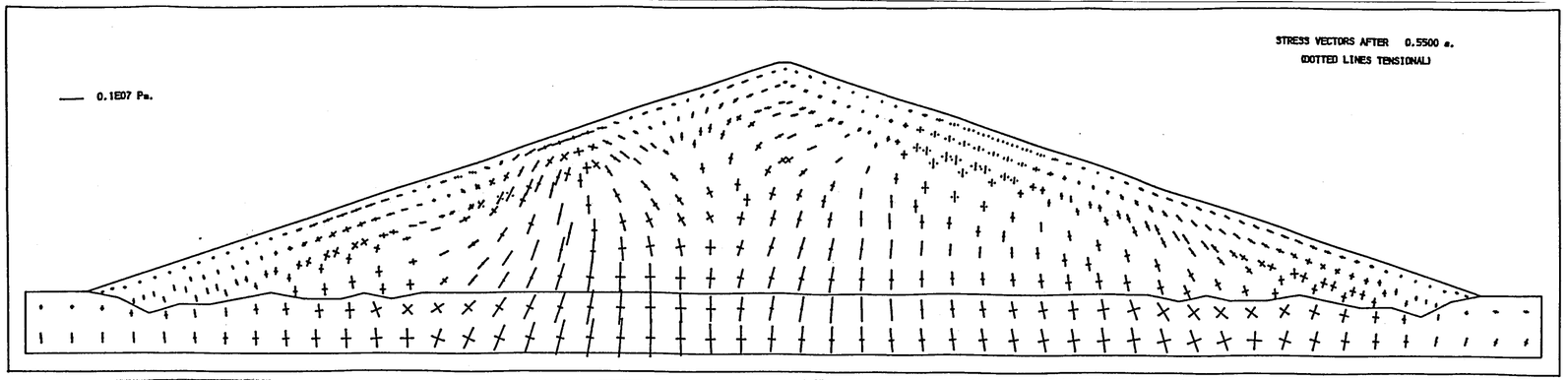

STRESS VECTORS AFTER 0.3750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

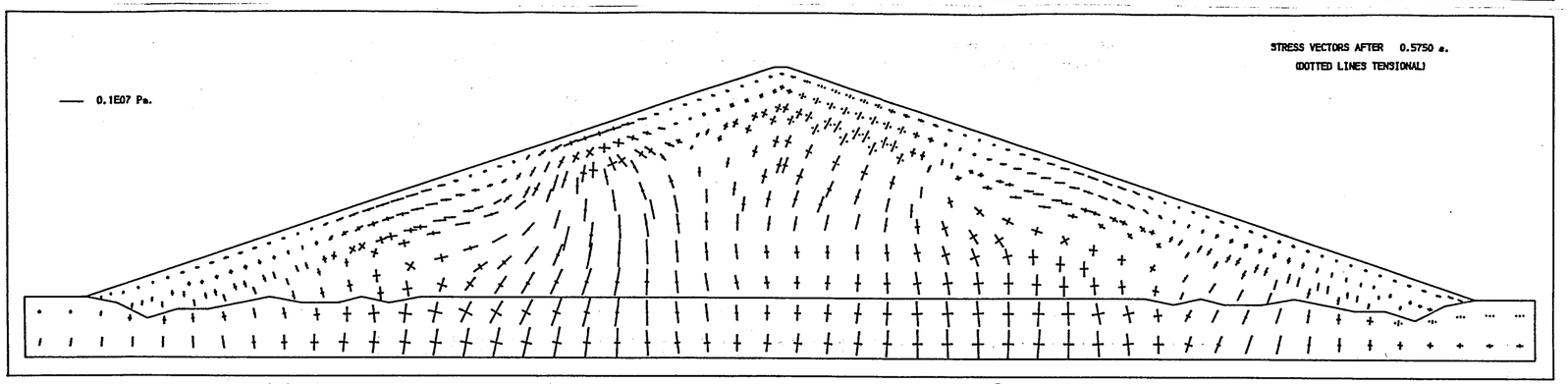

STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

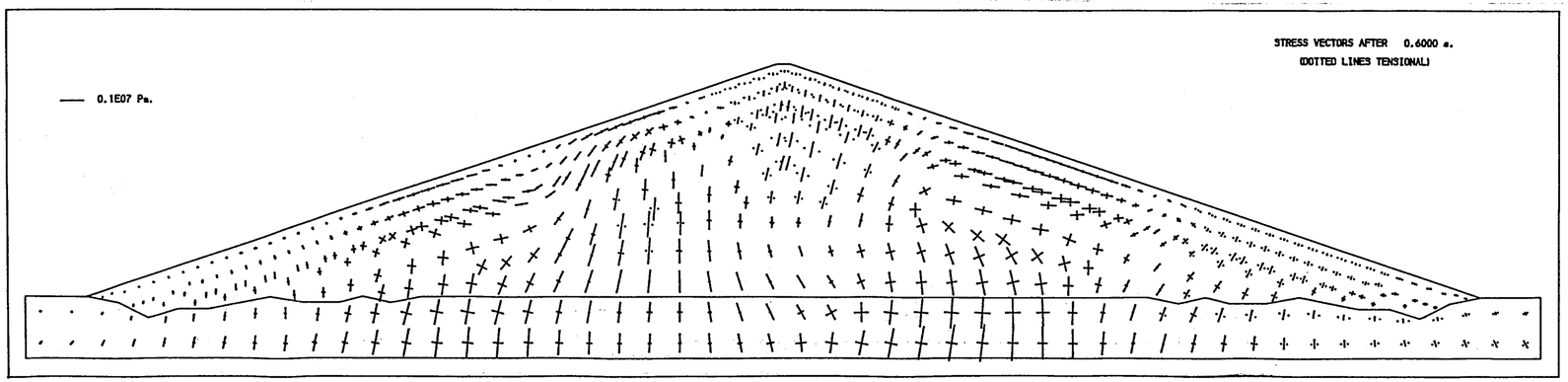

STRESS VECTORS AFTER 0.4250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.4500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.4750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.5000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.5250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

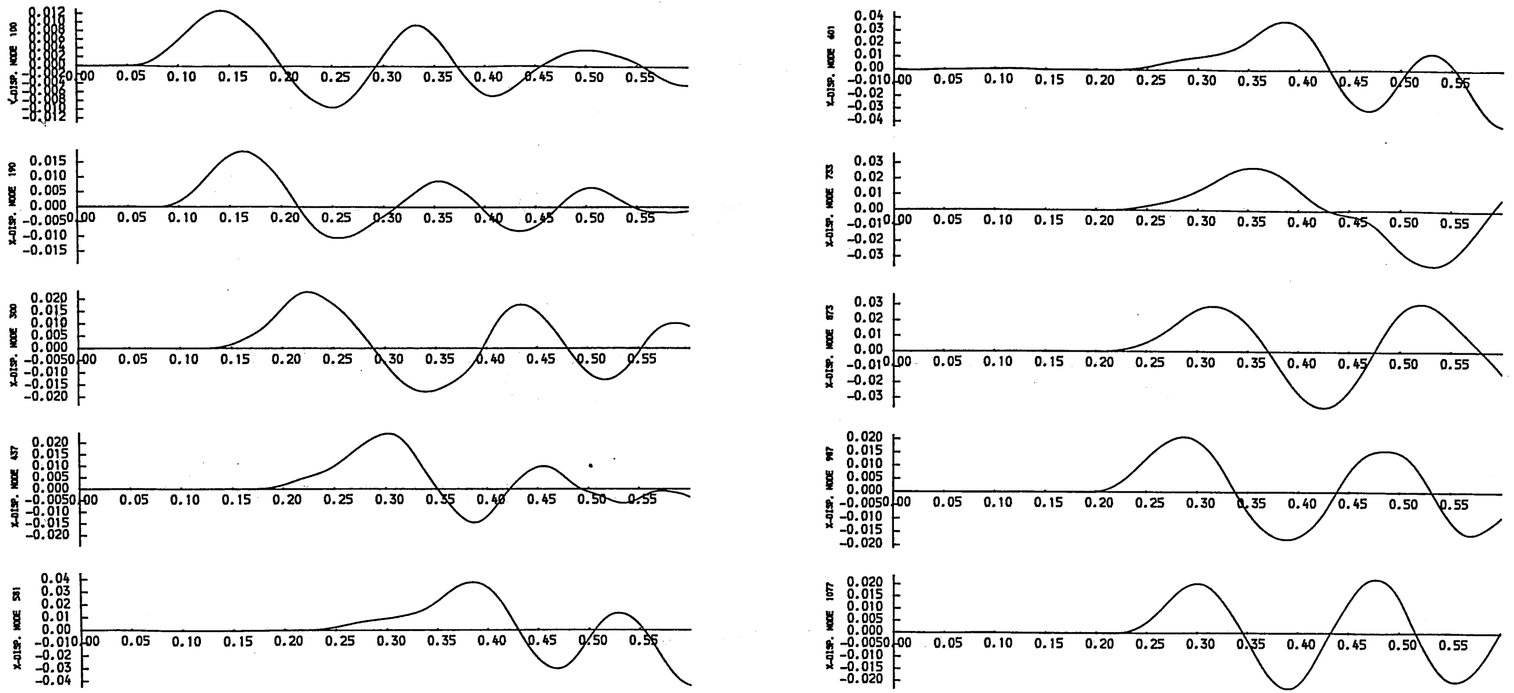

STRESS VECTORS AFTER 0.6000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.

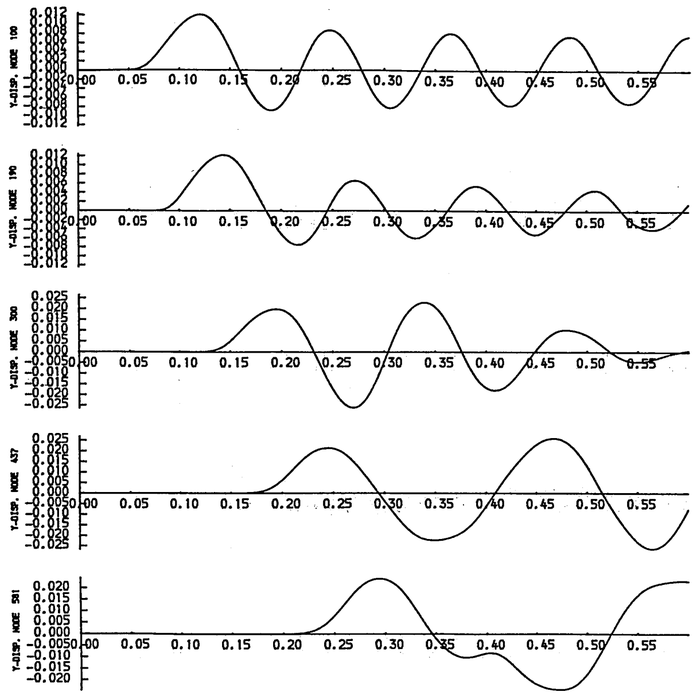
Time-displacement graphs and stress distributions for D2/11

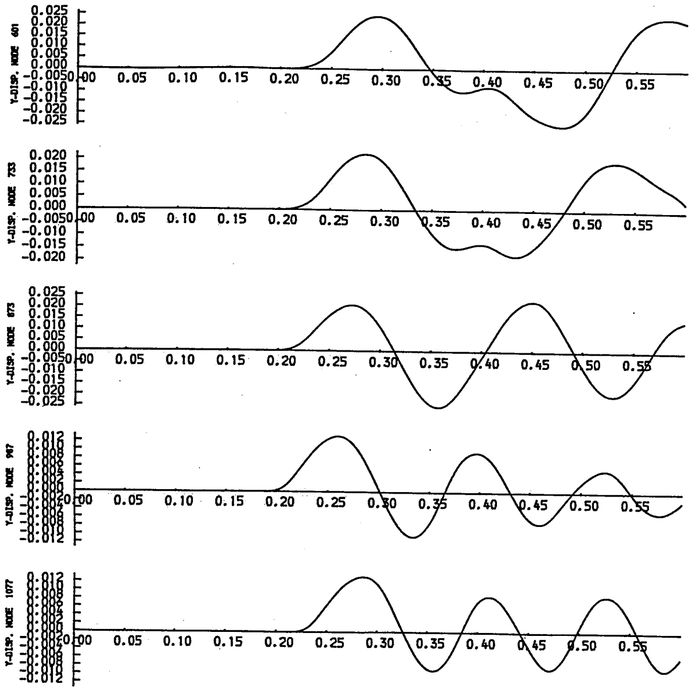
S-wave of incidence 30^{o}

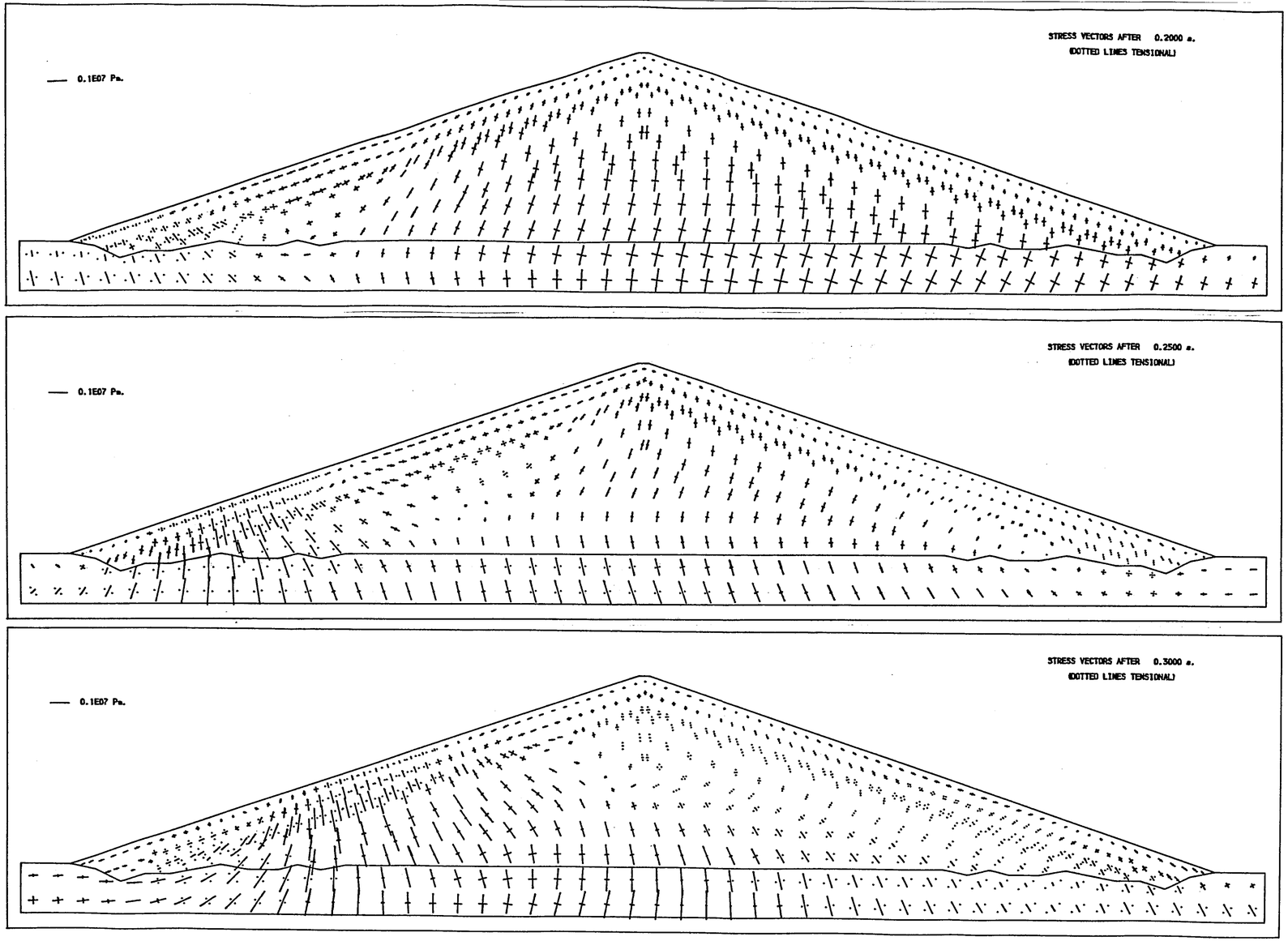
Base acceleration g

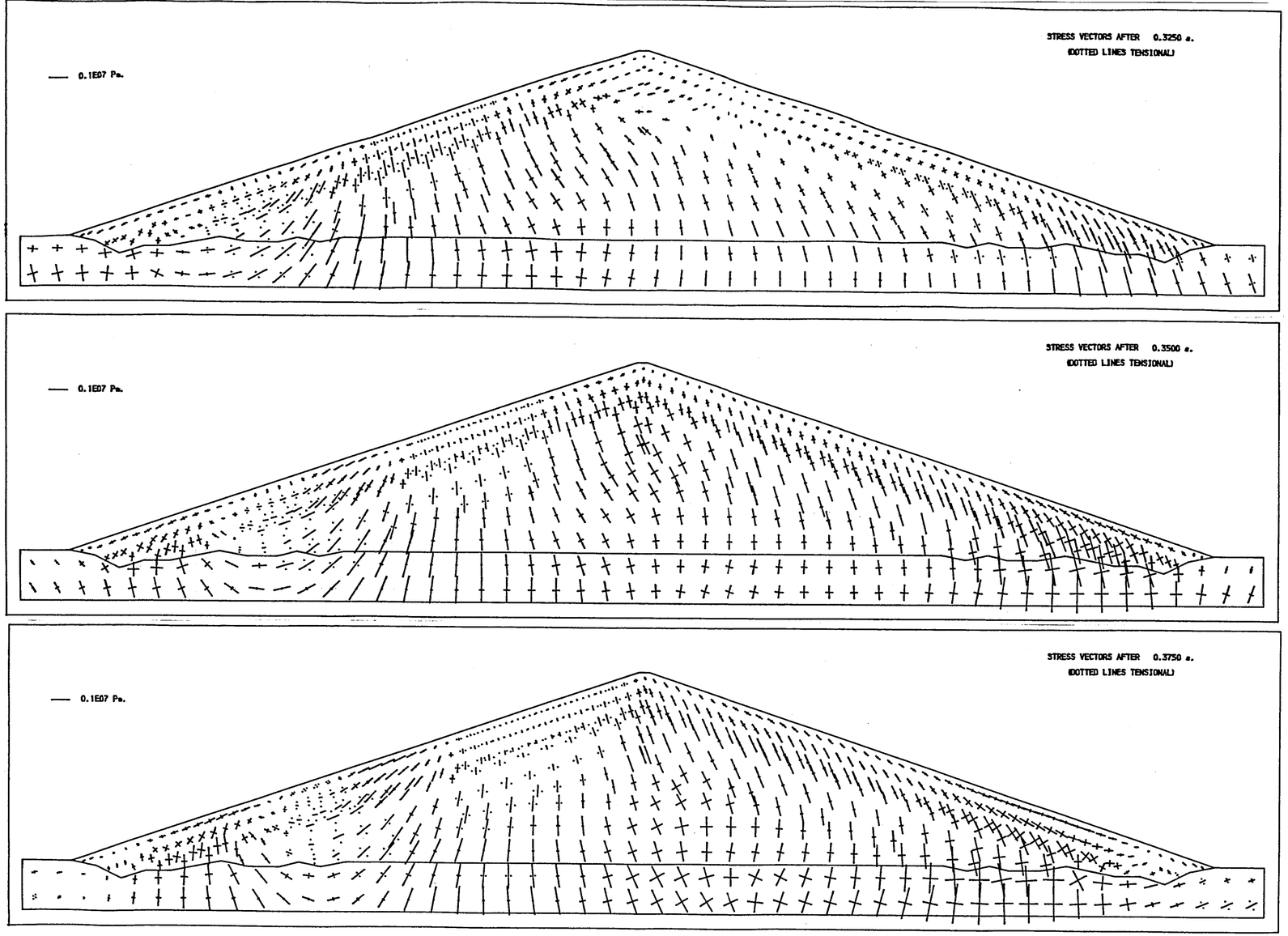
D2/11; S; 30; g

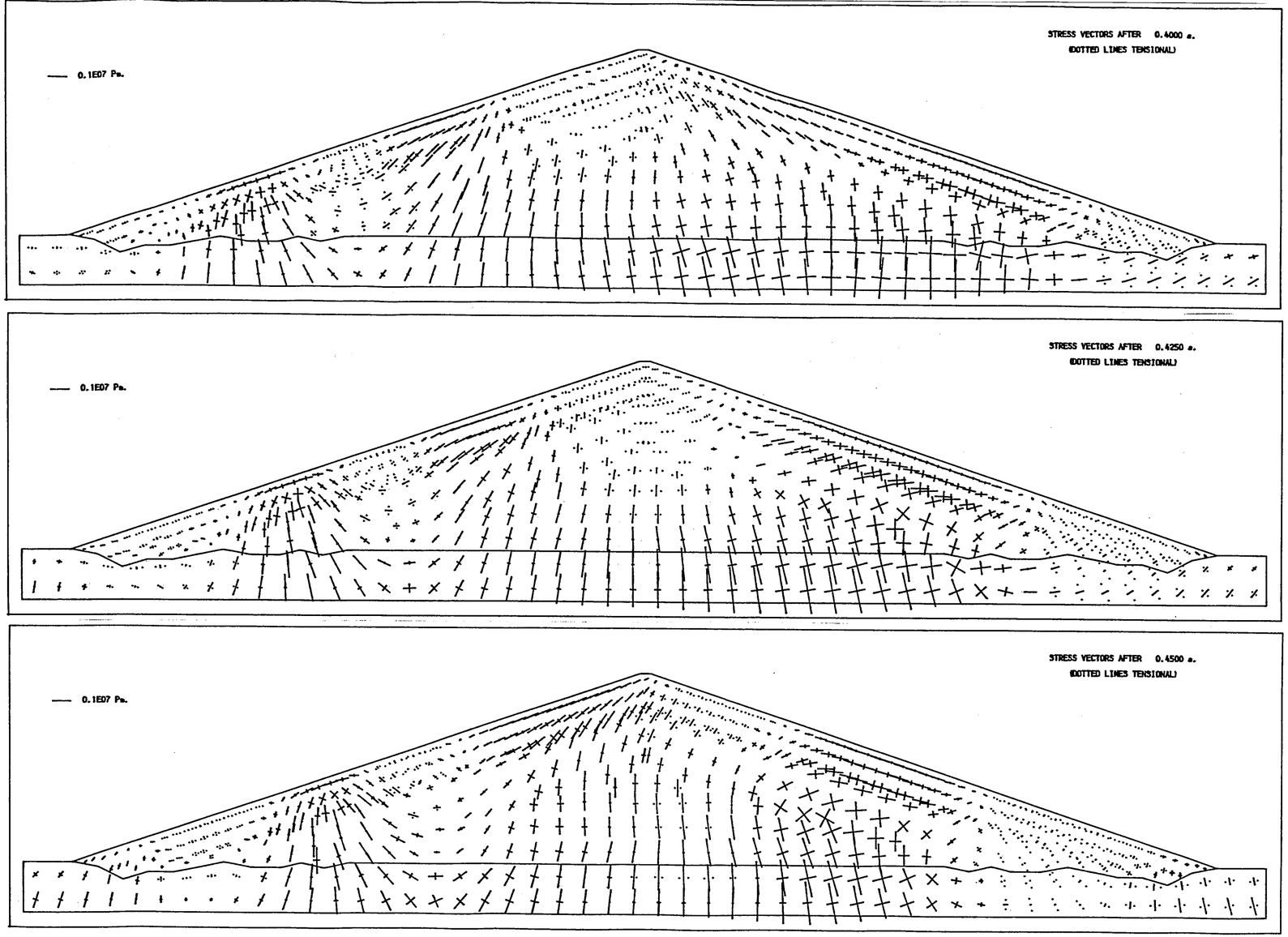

X-DISP, MODE 100
X-DISP, MODE 190
X-DISP, MODE 300
X-DISP, MODE 437
X-DISP, MODE 581
X-DISP, MODE 401
X-DISP, MODE 723
X-DISP, MODE 873
X-DISP, MODE 947
X-DISP, MODE 1077
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50 0.55

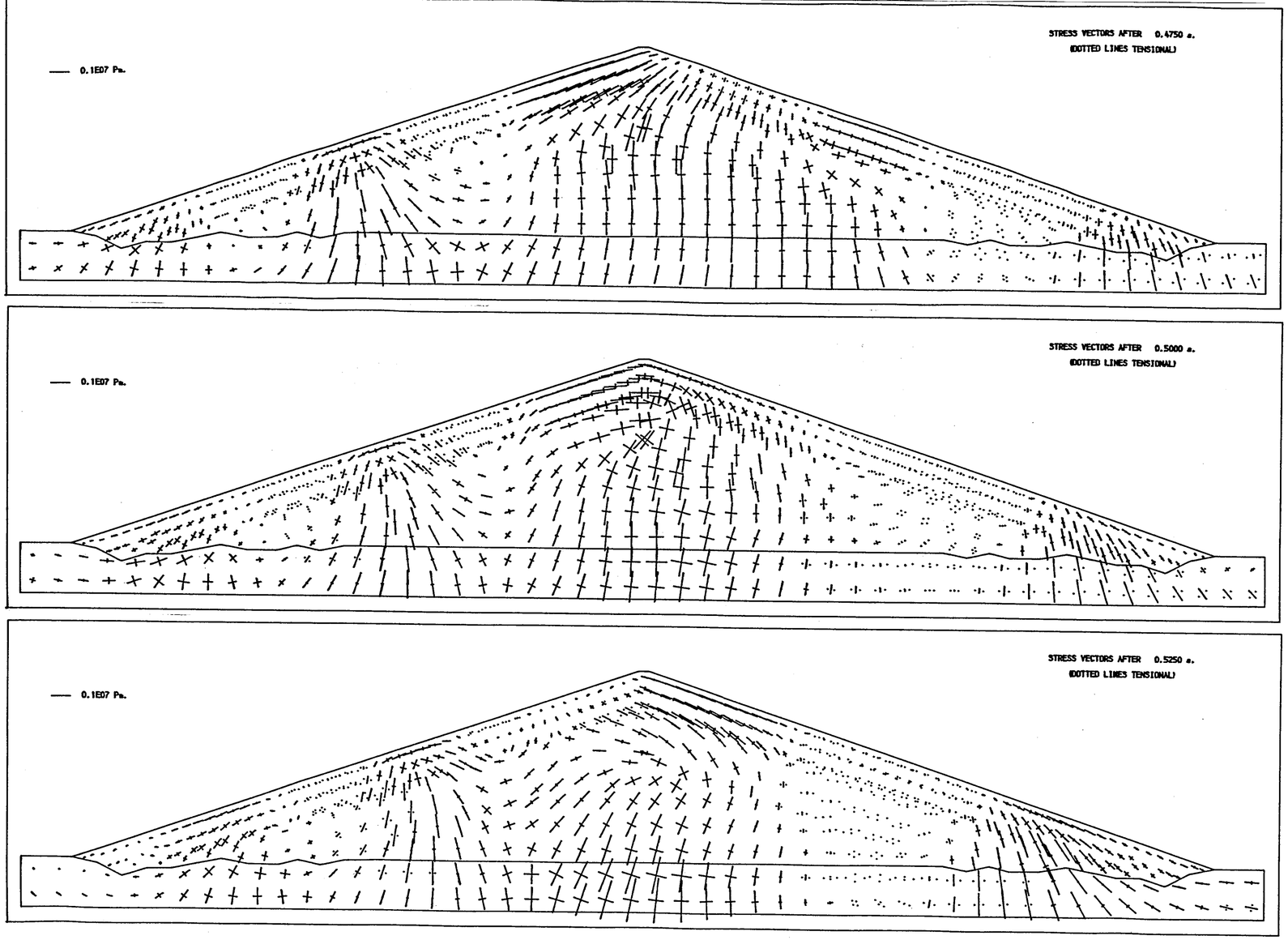

Y-DISP. NODE 100
Y-DISP. NODE 190
Y-DISP. NODE 300
Y-DISP. NODE 437
Y-DISP. NODE 581
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50 0.55

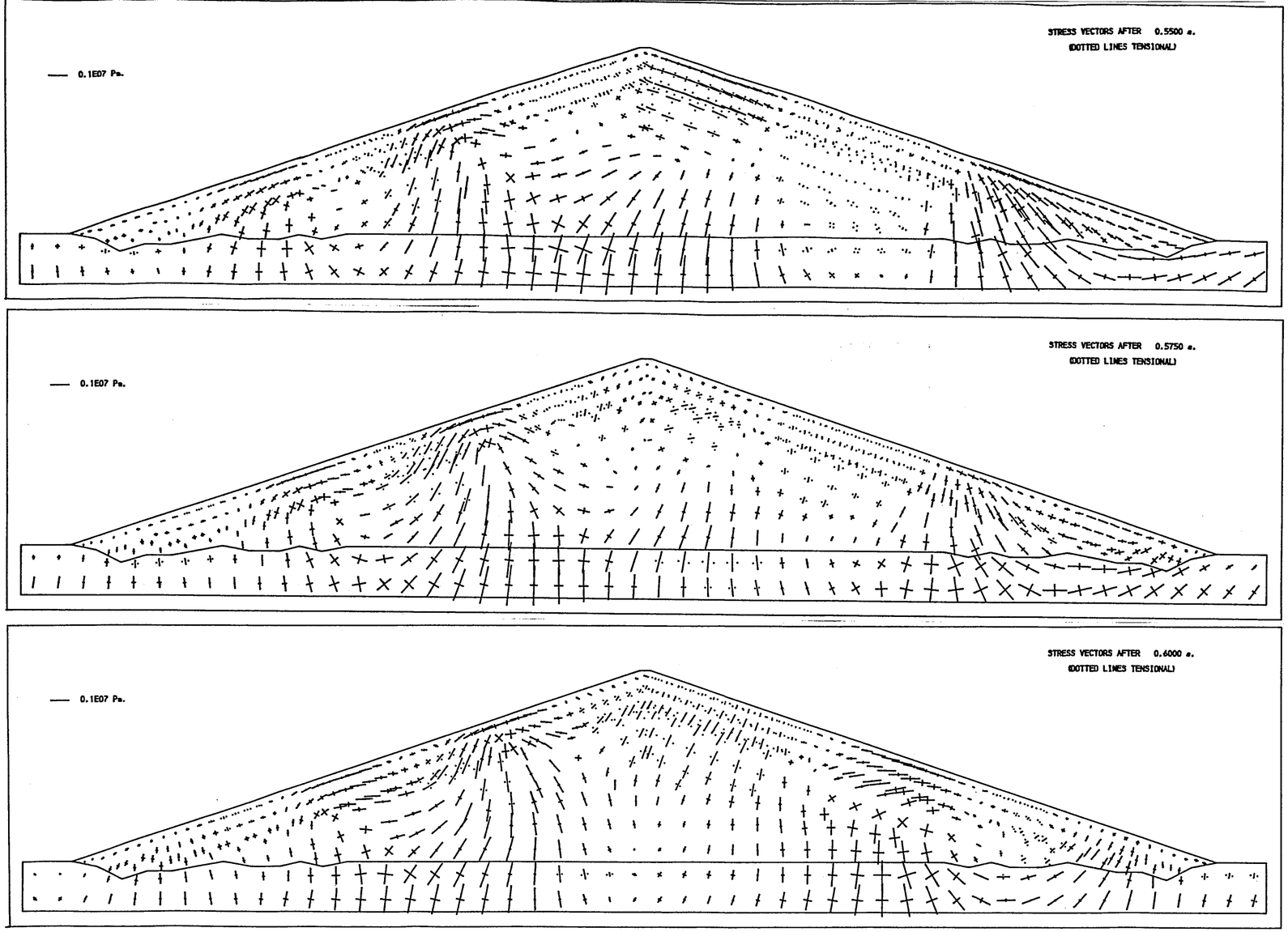

Y-DISP. NODE 601
Y-DISP. NODE 733
Y-DISP. NODE 873
Y-DISP. NODE 947
Y-DISP. NODE 1077
0.00 0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50 0.55


STRESS VECTORS AFTER 0.2000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.2500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.3250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.3750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.4000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.4250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.4500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.4750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.5000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.5250 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.


STRESS VECTORS AFTER 0.5500 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.5750 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.
STRESS VECTORS AFTER 0.6000 s.
(DOTTED LINES TENSIONAL)
0.1E07 Pa.