

KIC 006925256

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006925256-01	OBS	No	82.187917	164.268840	2831.7	11.197	11.1	7.0	0.56	3673	2.86	0.55
006925256-02	OBS	No	78.130633	171.955459	2006.5	4.703	11.8	5.7	0.56	3673	2.53	0.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006925256-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006925256-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

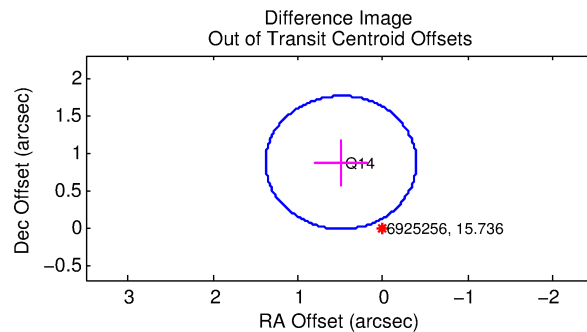
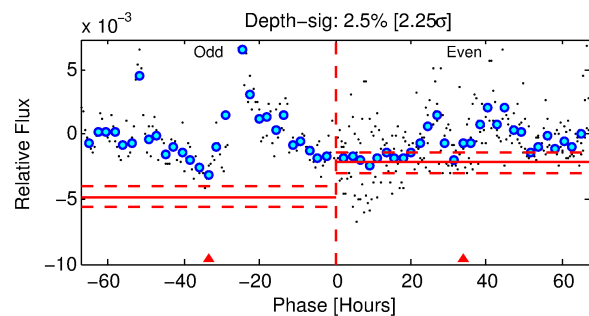
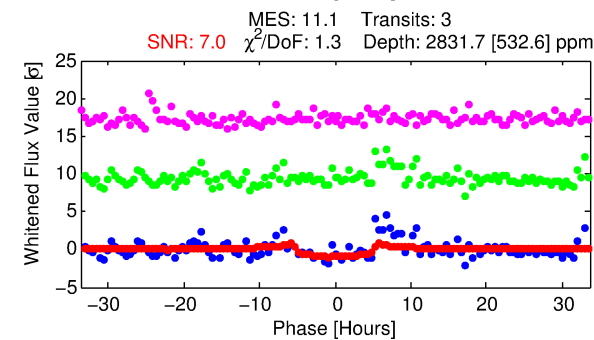
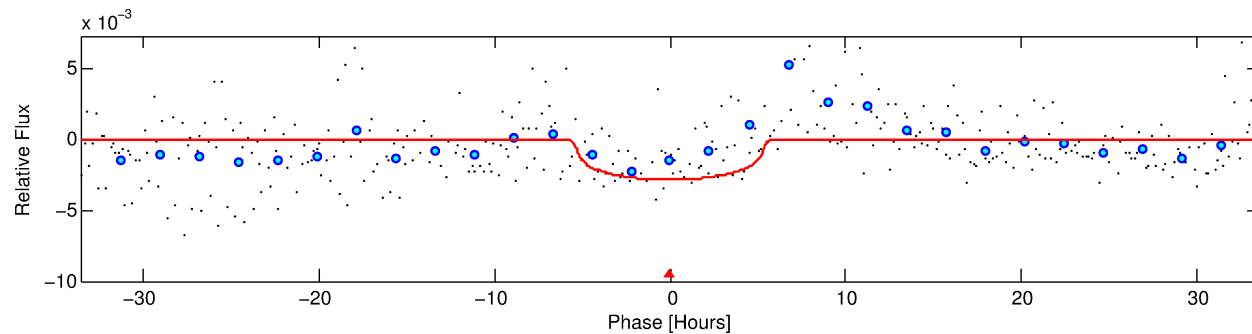
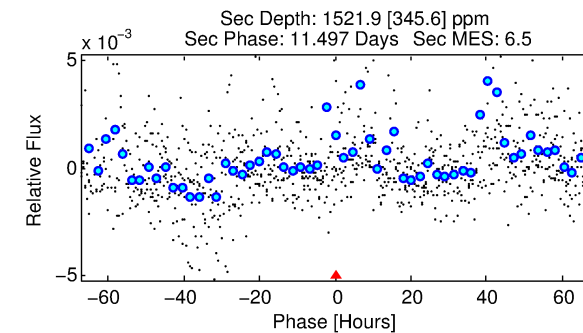
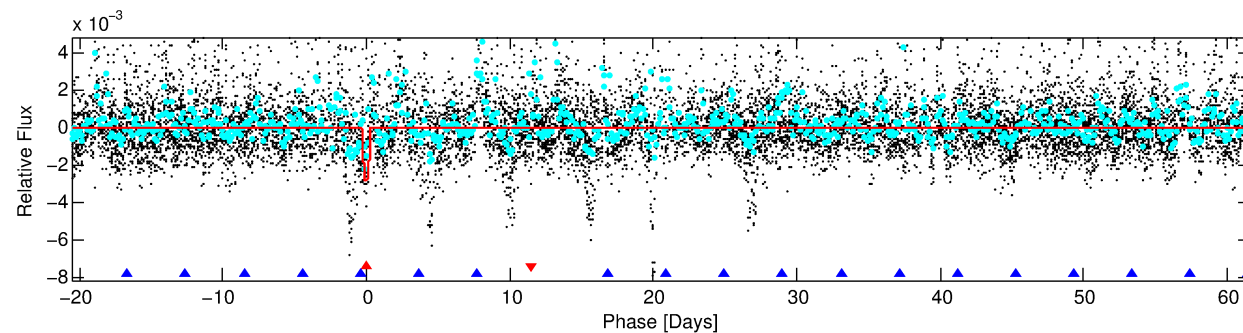
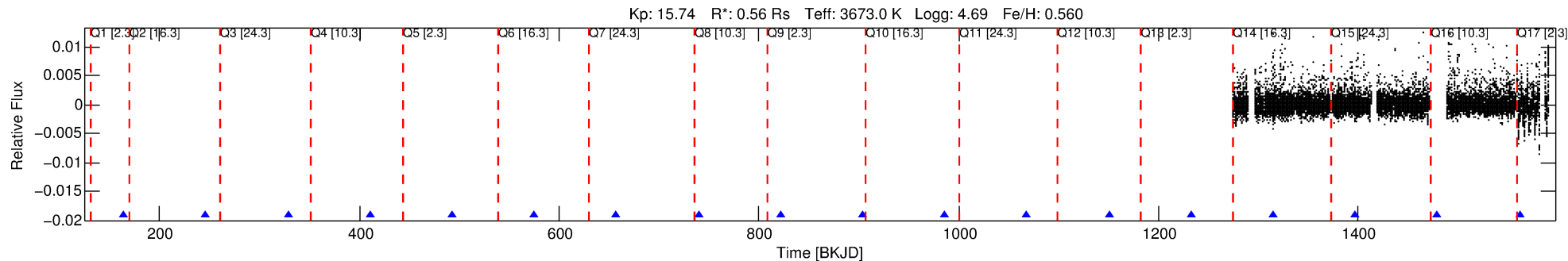
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006925256-01

No Significant Match Found

DV One-Page Summary

KIC: 6925256 Candidate: 1 of 2 Period: 82.188 d



DV Fit Results:

Period = 82.18792 [0.00604] d
Epoch = 164.2688 [0.0922] BKJD
Rp/R* = 0.0468 [0.0380]
a/R* = 58.66 [146.16]
b = 0.04 [64.39]
Seff = 0.55 [0.12]
Teq = 219 [12] K
Rp = 2.86 [2.36] Re
a = 0.3053 [0.0349] AU
Ag = 9540.04 [15705.63] [0.61 σ]
Teffp = 3353 [1379] K [2.27 σ]

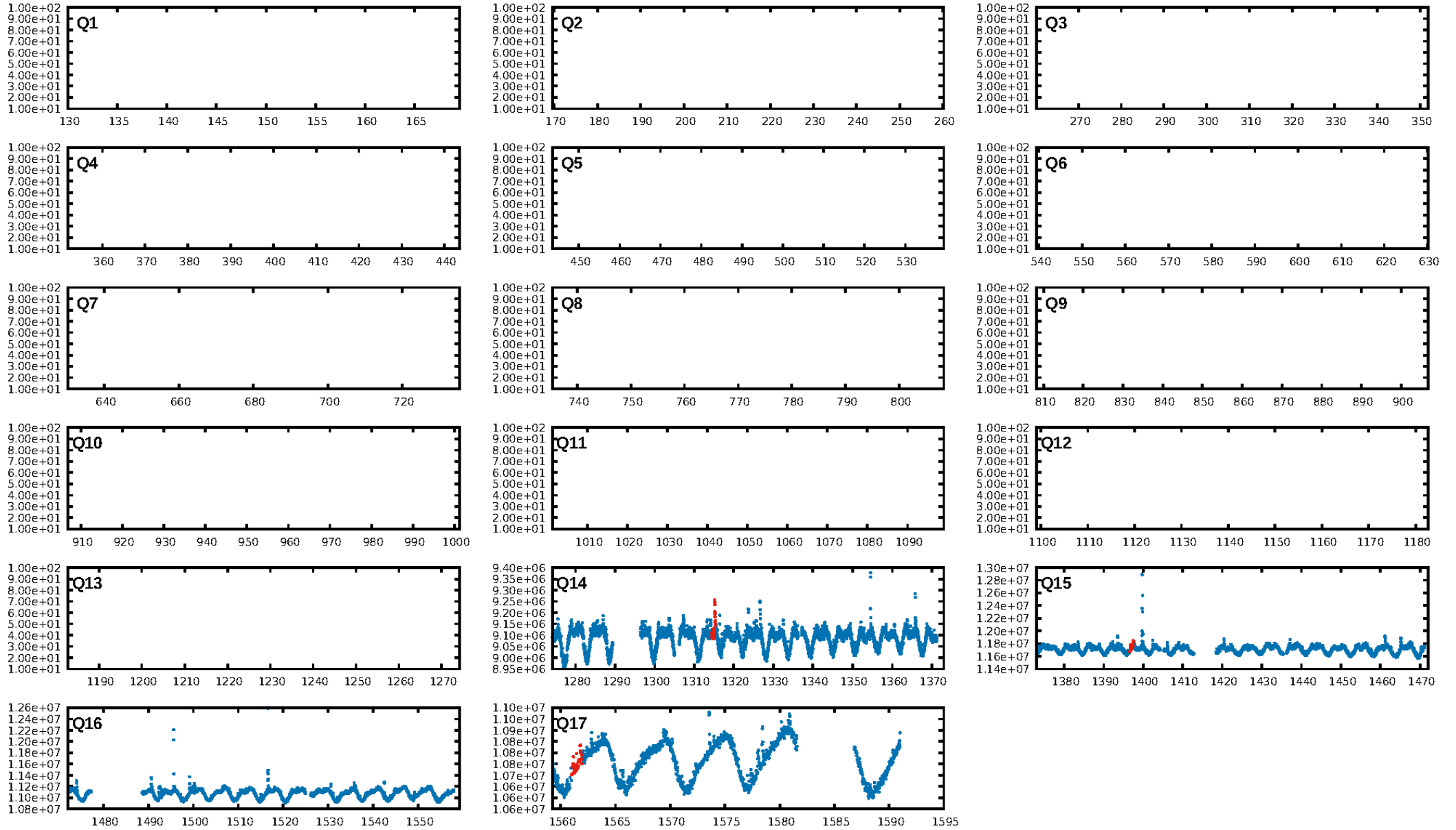
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.02 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 95.5%
Bootstrap-pfa: 2.26e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.9026
Centroid-sig: 16.3%
Centroid-so: 1.067 arcsec [1.41 σ]
OotOffset-rm: 0.998 arcsec [3.37 σ]
KicOffset-rm: 0.740 arcsec [2.51 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

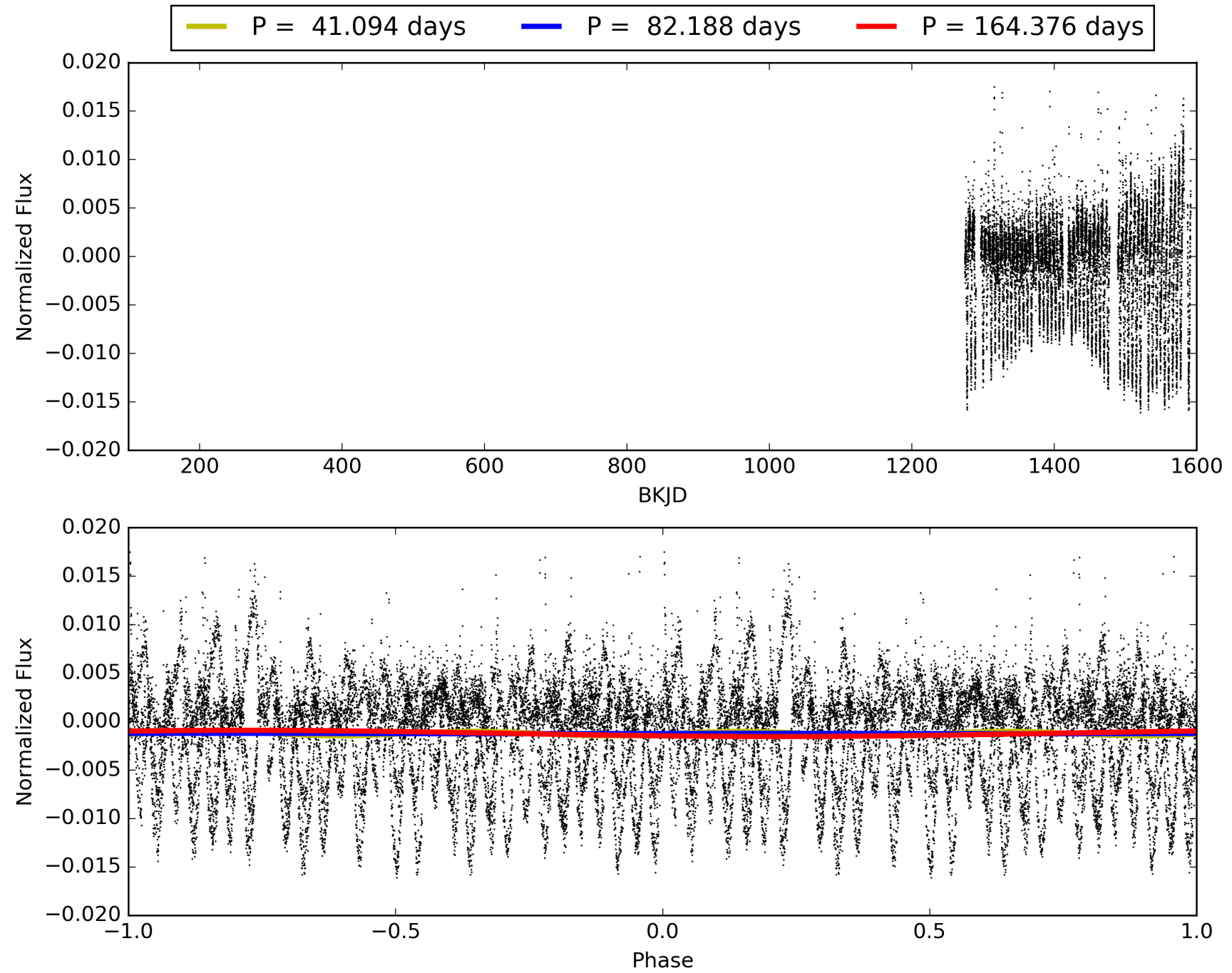
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:58:15 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006925256-01, PDC Light Curves

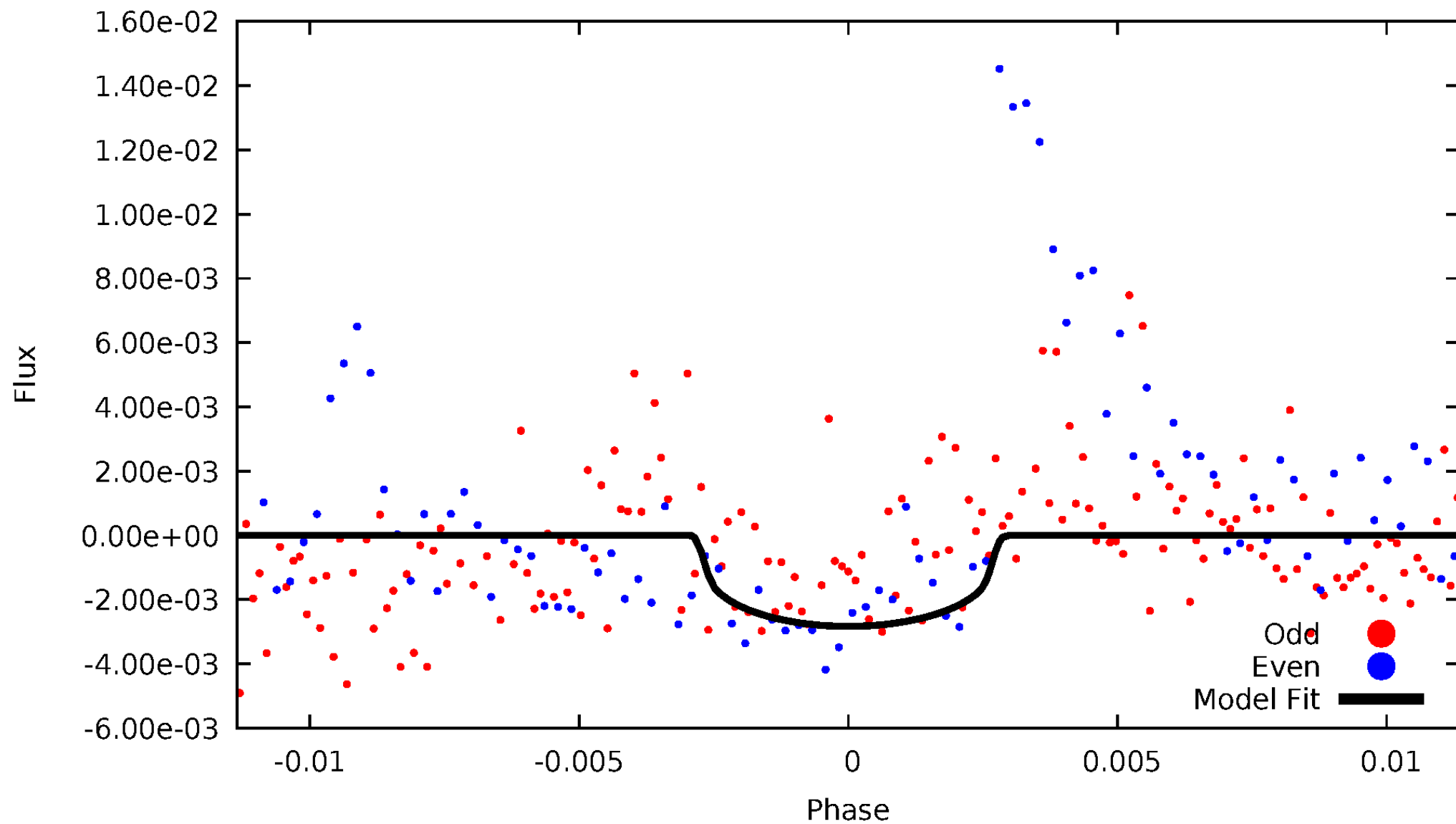


TCE 006925256-01



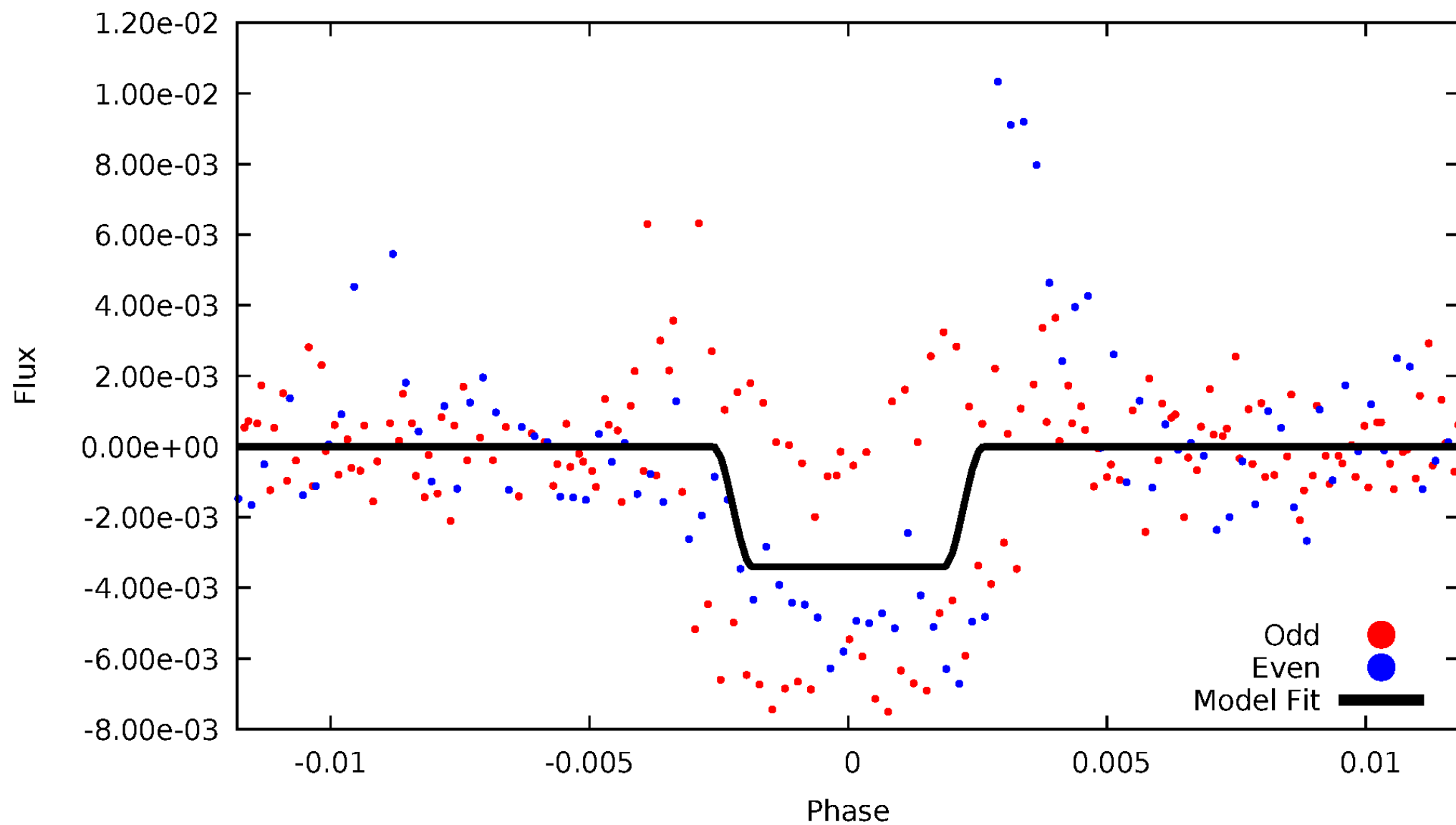
DV Odd/Even

TCE 006925256-01



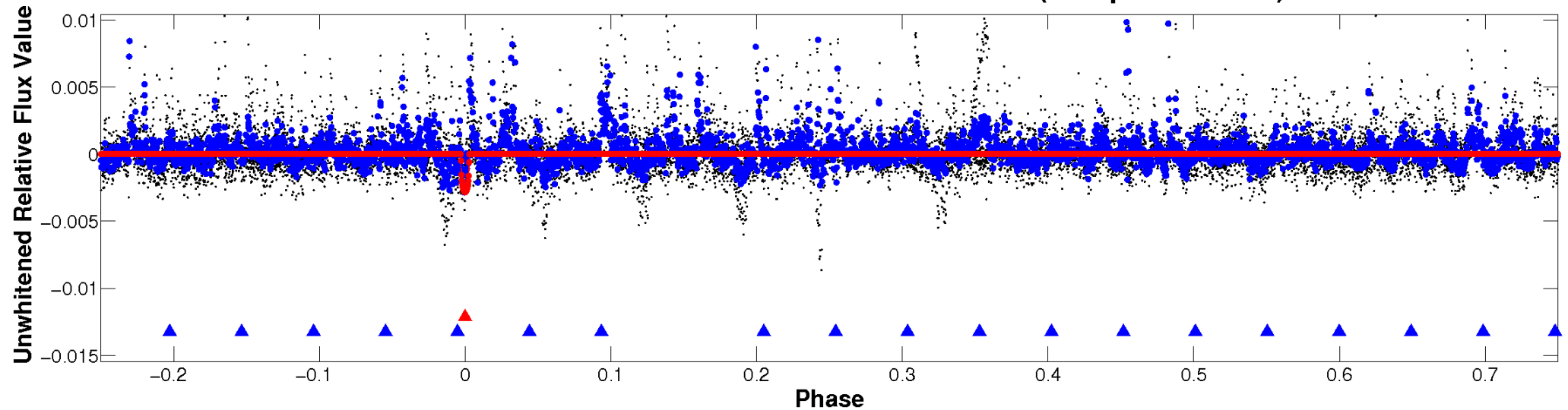
ALT Odd/Even

TCE 006925256-01

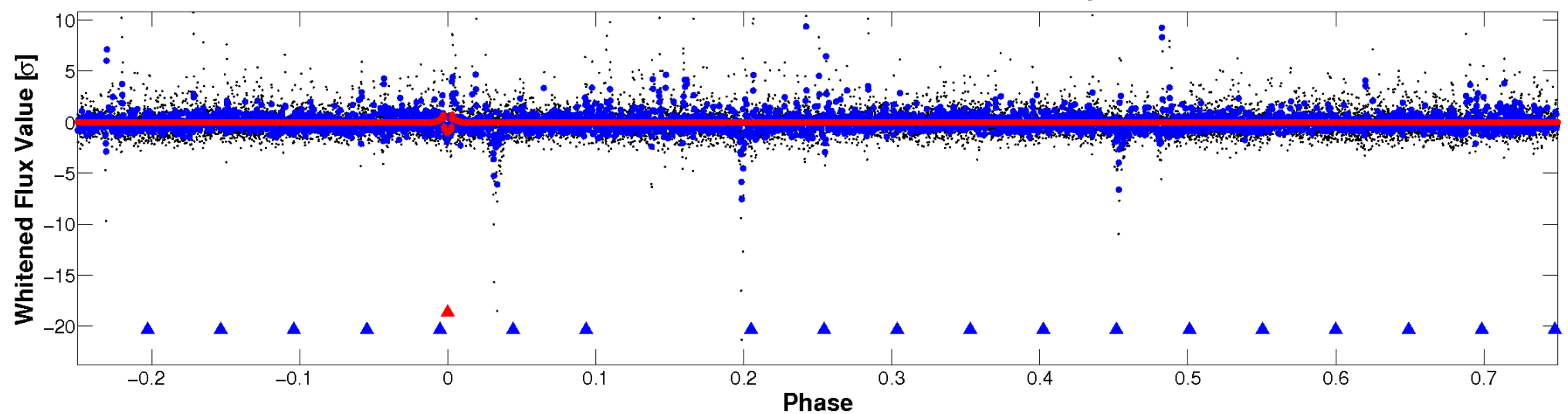


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

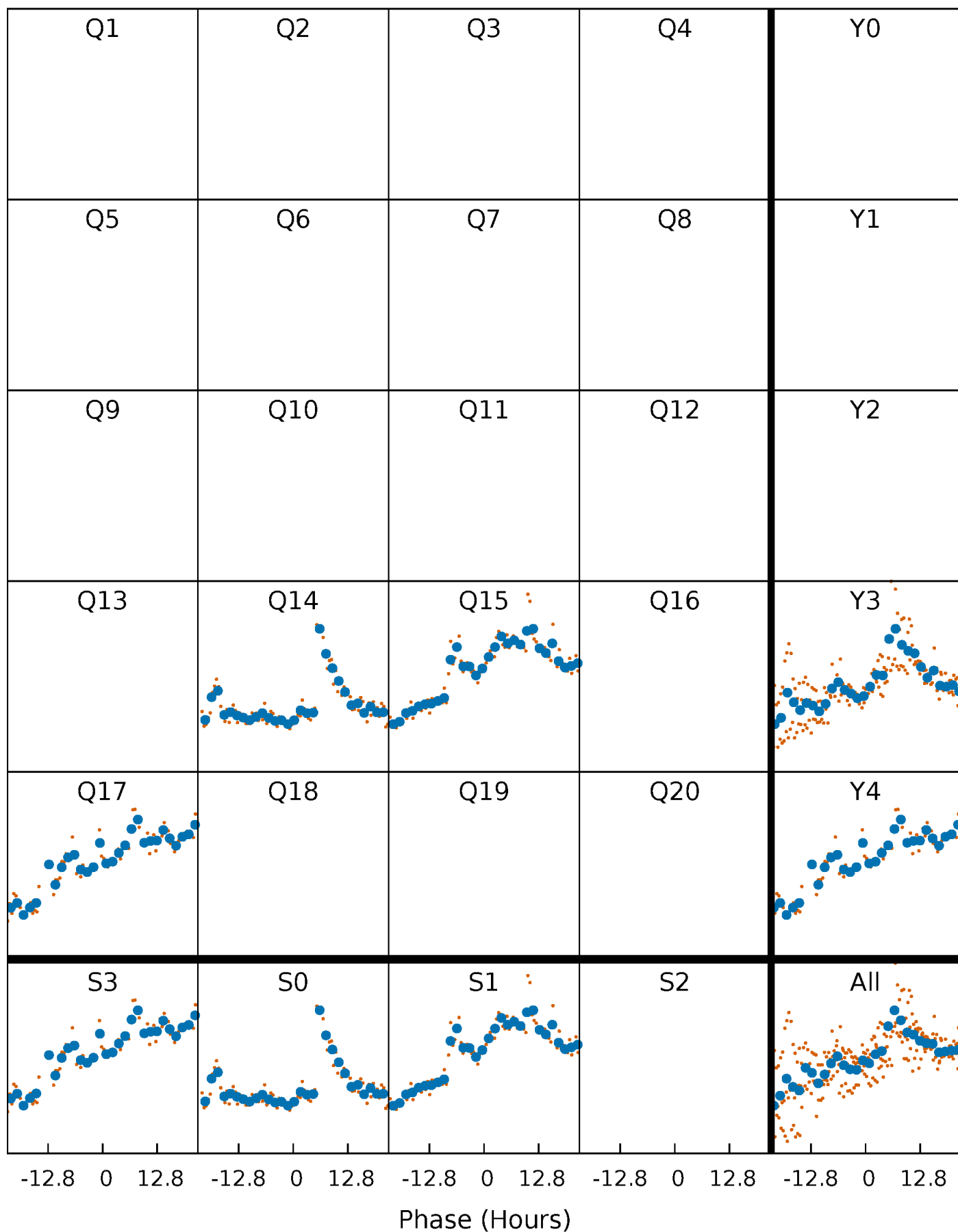


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



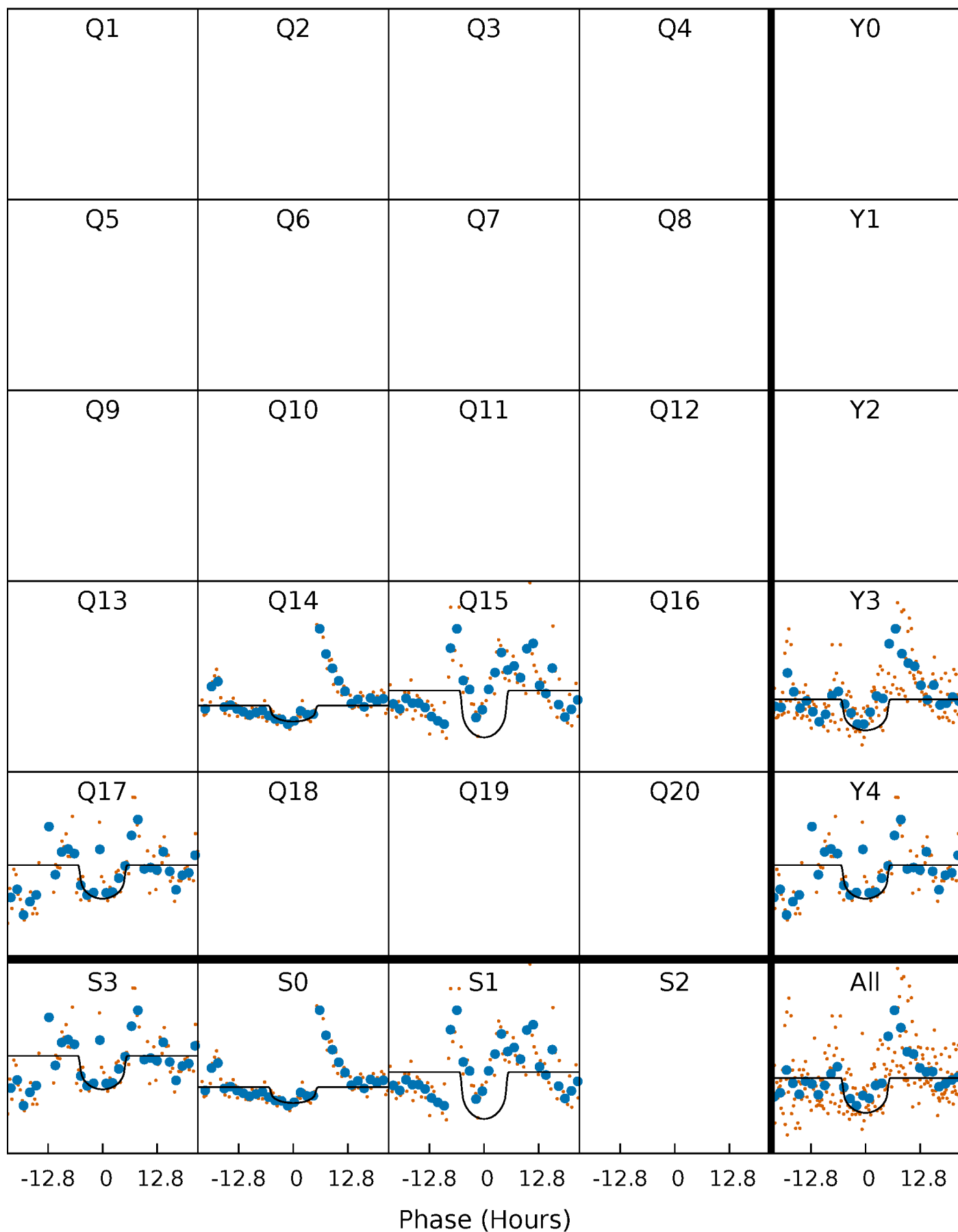
PDC Quarter-Phased Transit Curves

TCE 006925256-01 P= 82.187917 Days $T_0=164.268840$ (BKJD)



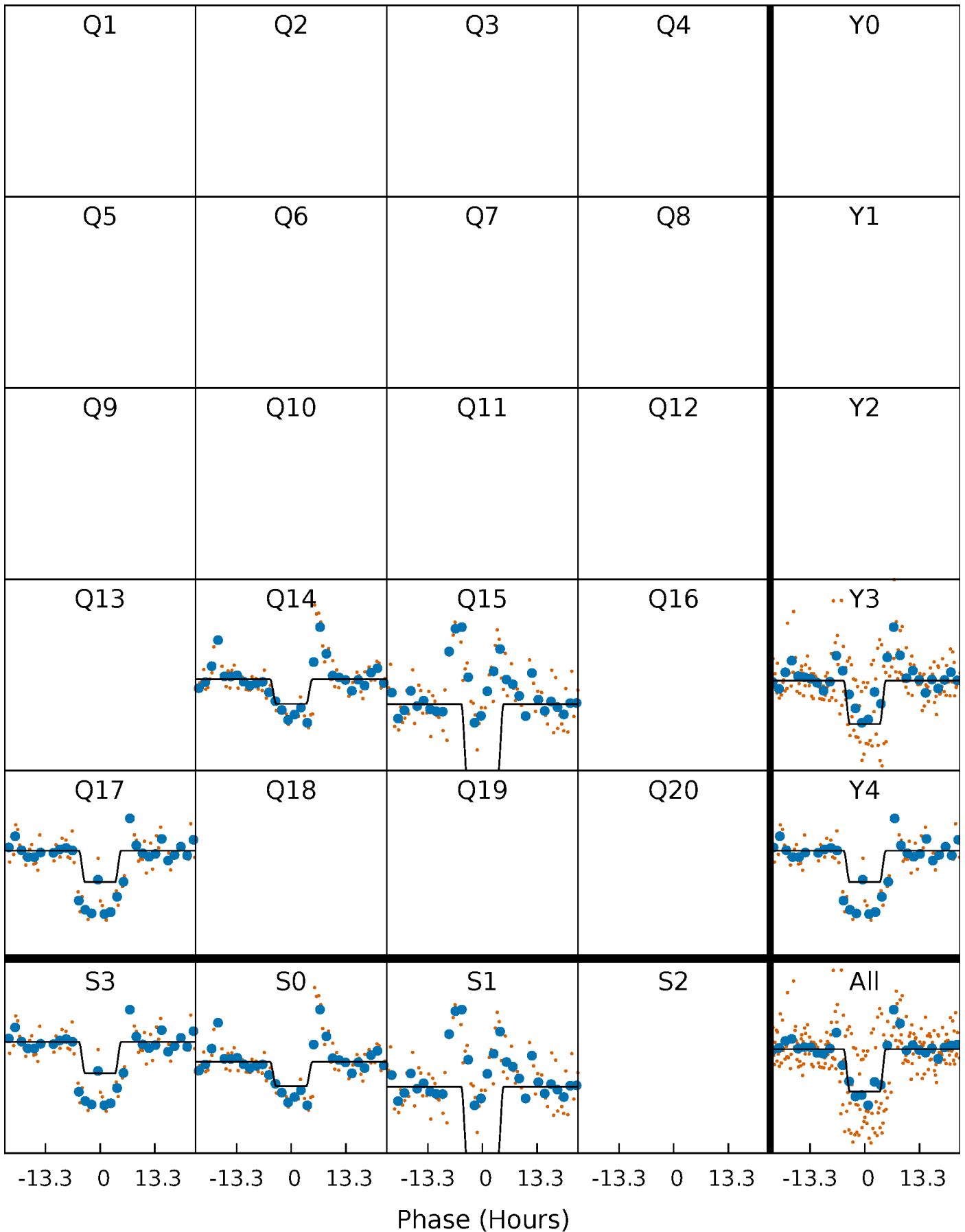
DV Quarter-Phased Transit Curves

TCE 006925256-01 P= 82.187917 Days $T_0=164.268840$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

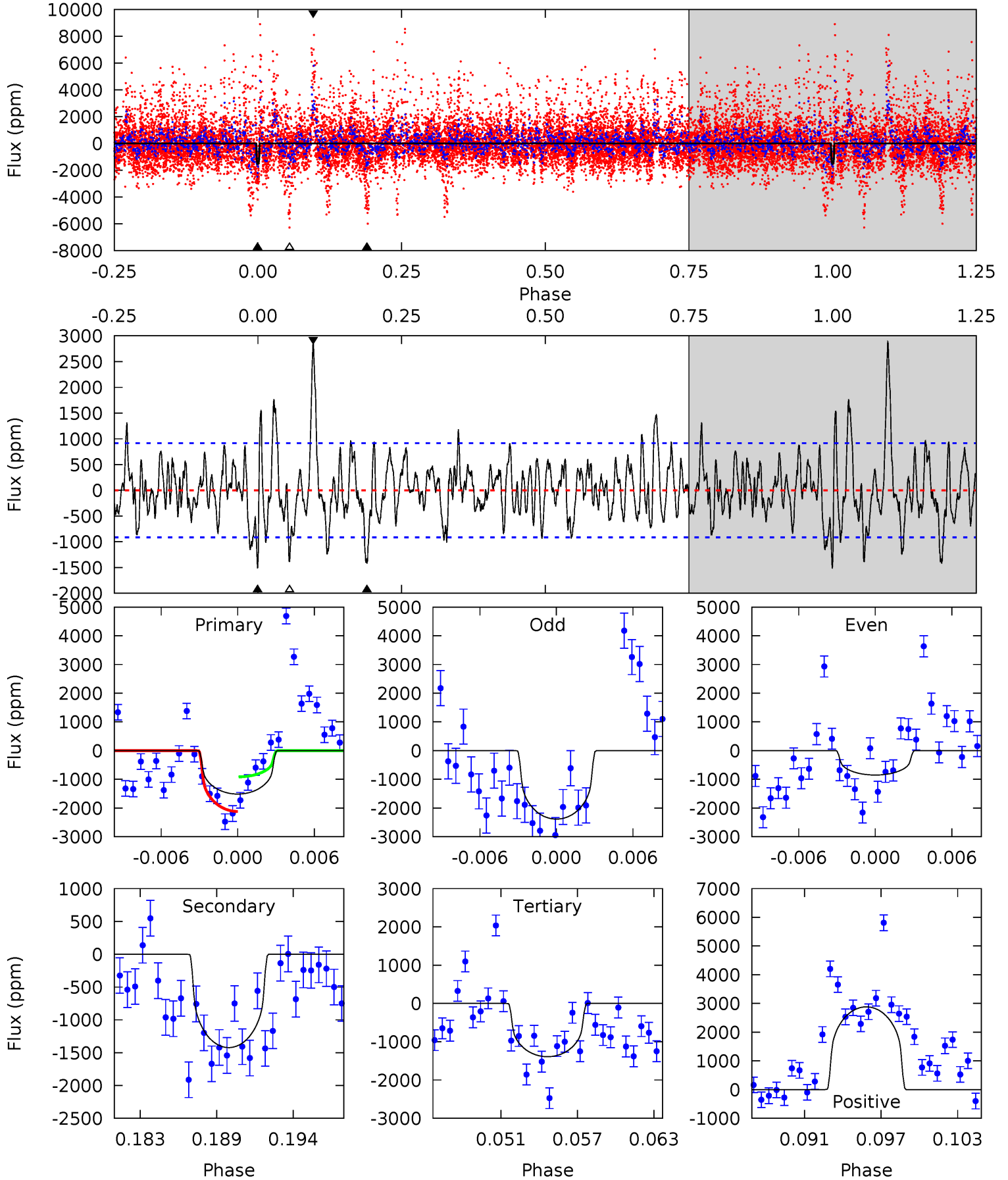
TCE 006925256-01 P= 82.186317 Days $T_0=164.284692$ (BKJD)



DV Model-Shift Uniqueness Test

006925256-01, P = 82.187917 Days, E = 164.268840 Days

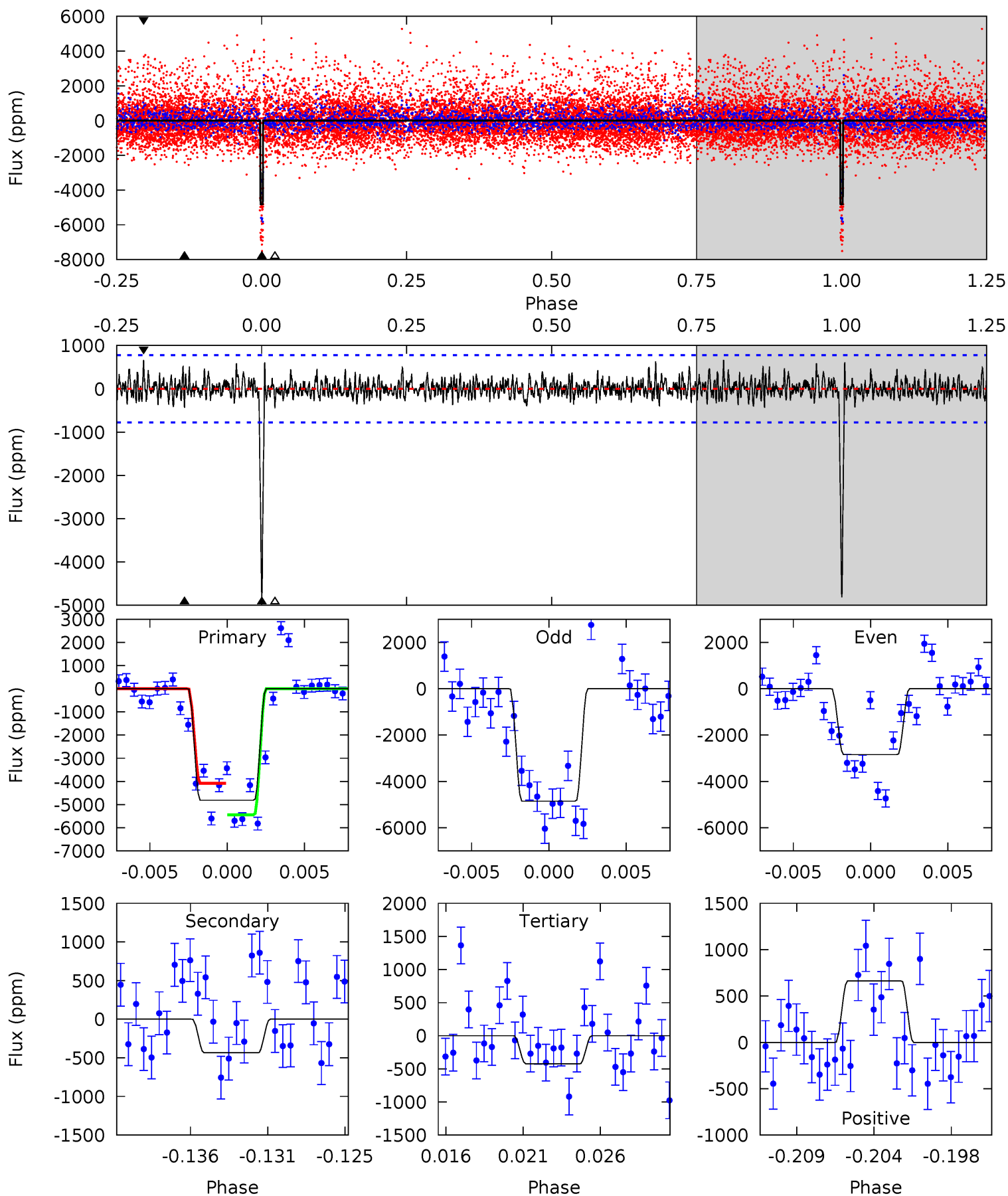
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.51	7.99	7.81	16.2	5.13	2.76	2.77	0.70	-7.68	0.18	-8.19	3.62	0.75	0.66	3.40



Alt Model-Shift Uniqueness Test

006925256-01, P = 82.186317 Days, E = 164.284692 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.8	2.88	2.81	4.38	5.15	2.79	1.03	29.0	27.4	0.07	-1.50	6.96	0.72	0.12	4.51



Stellar Parameters For KIC 006925256

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3673^{+132}_{-132}	$4.691^{+0.080}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.560^{+0.032}_{-0.081}$	$0.561^{+0.040}_{-0.069}$	$4.498^{+1.756}_{-0.469}$
	+4%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+7%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006925256-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1423±178	$3.25^{+1.94}_{-1.93}$	303^{+12}_{-12}	3272^{+1211}_{-437}	6964^{+37355}_{-4317}
Alt.	-436±151	$3.65^{+2.23}_{-2.06}$	302^{+14}_{-14}	2685^{+676}_{-355}	1689^{+7261}_{-1140}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

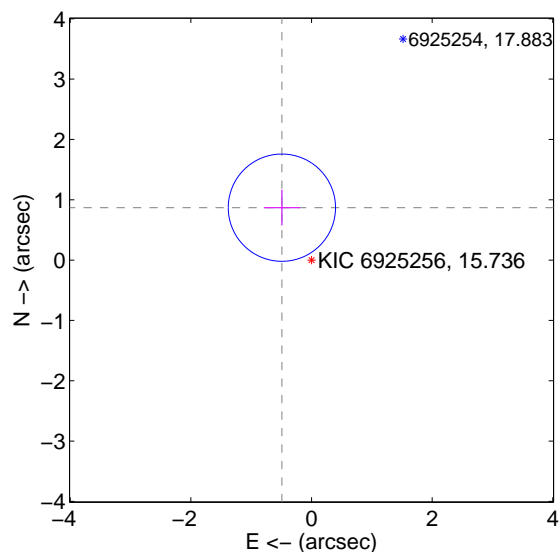
Supplemental centroid analysis for 006925256-01. Kepler magnitude: 15.74. Transit SNR 6.96

There are 1 quarters with good PRF difference image offsets

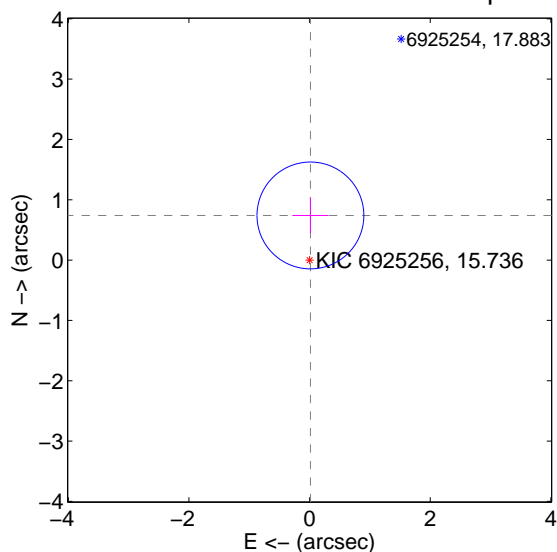
The direct PRF centroid is offset from the target star catalog position by about 0.52 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.998 ± 0.296	3.37	0.491 ± 0.300	0.869 ± 0.295
PRF-fit source offset from KIC position	0.740 ± 0.295	2.51	-0.014 ± 0.300	0.740 ± 0.295
photometric centroid source offset	1.07 ± 0.76	1.41	-1.05 ± 0.76	0.18 ± 0.52

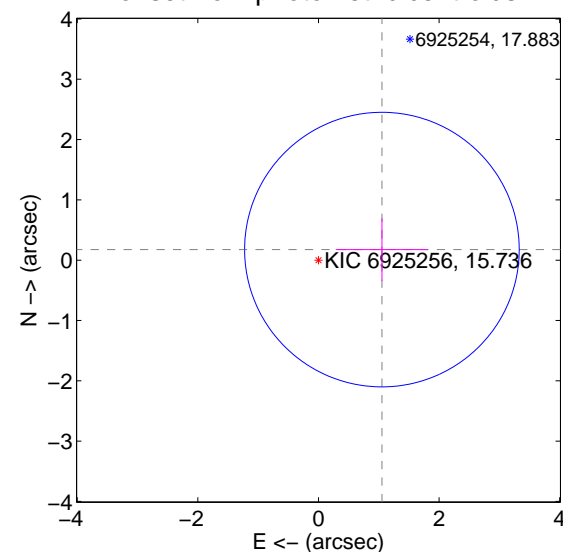
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



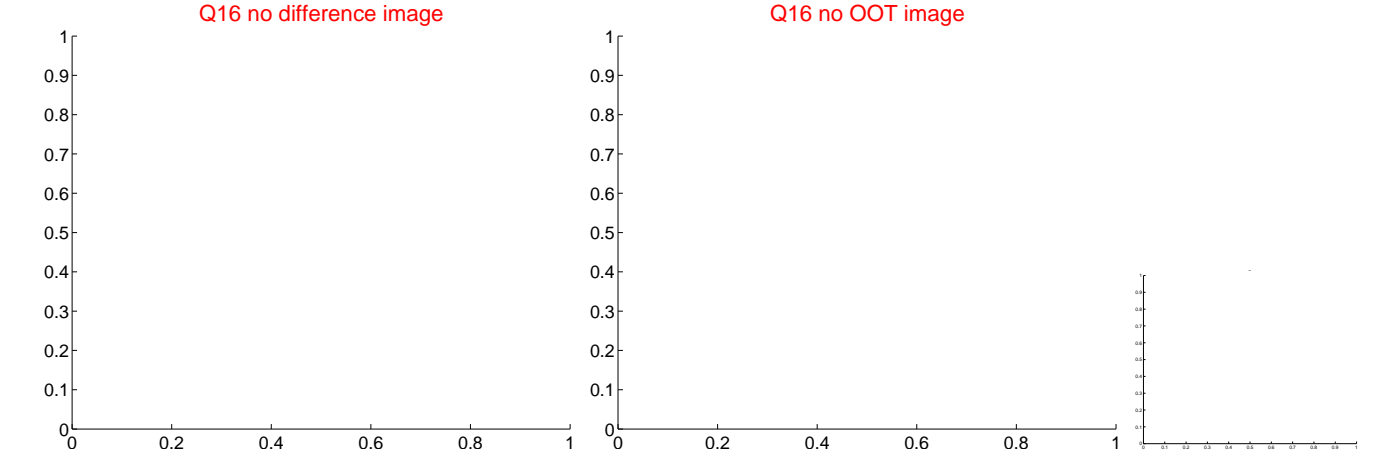
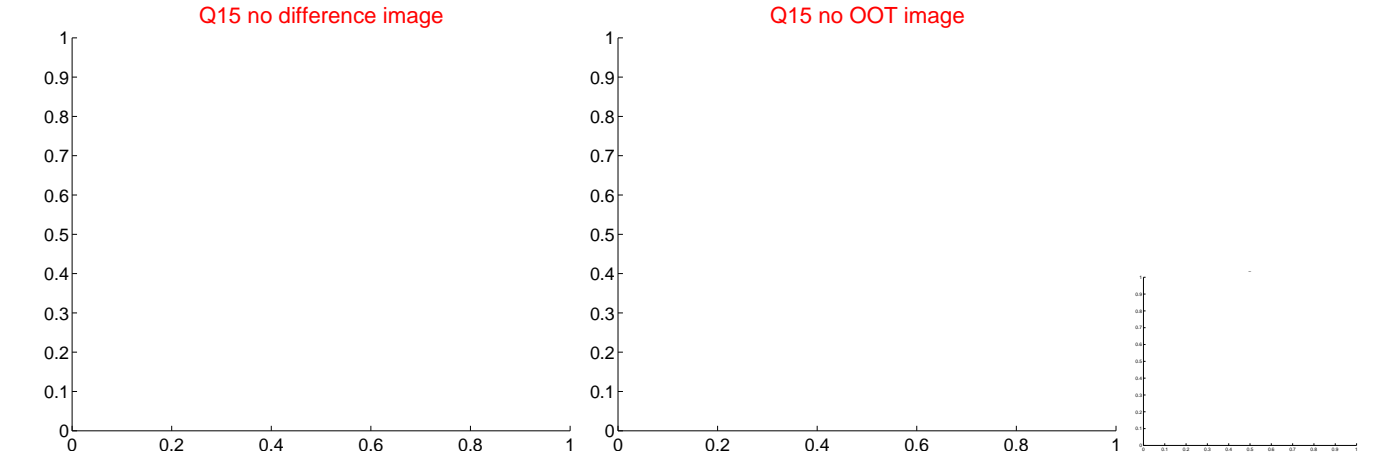
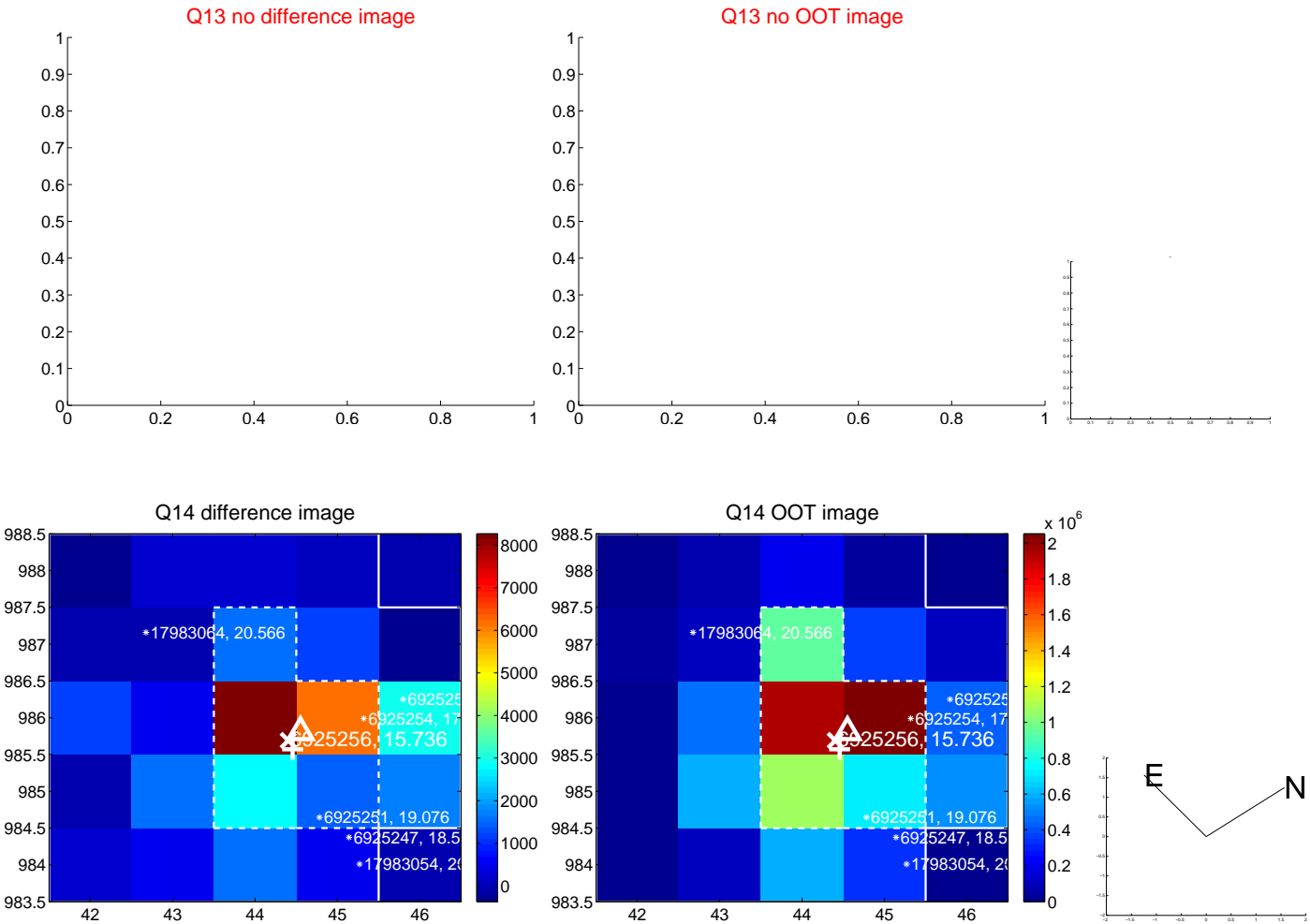
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



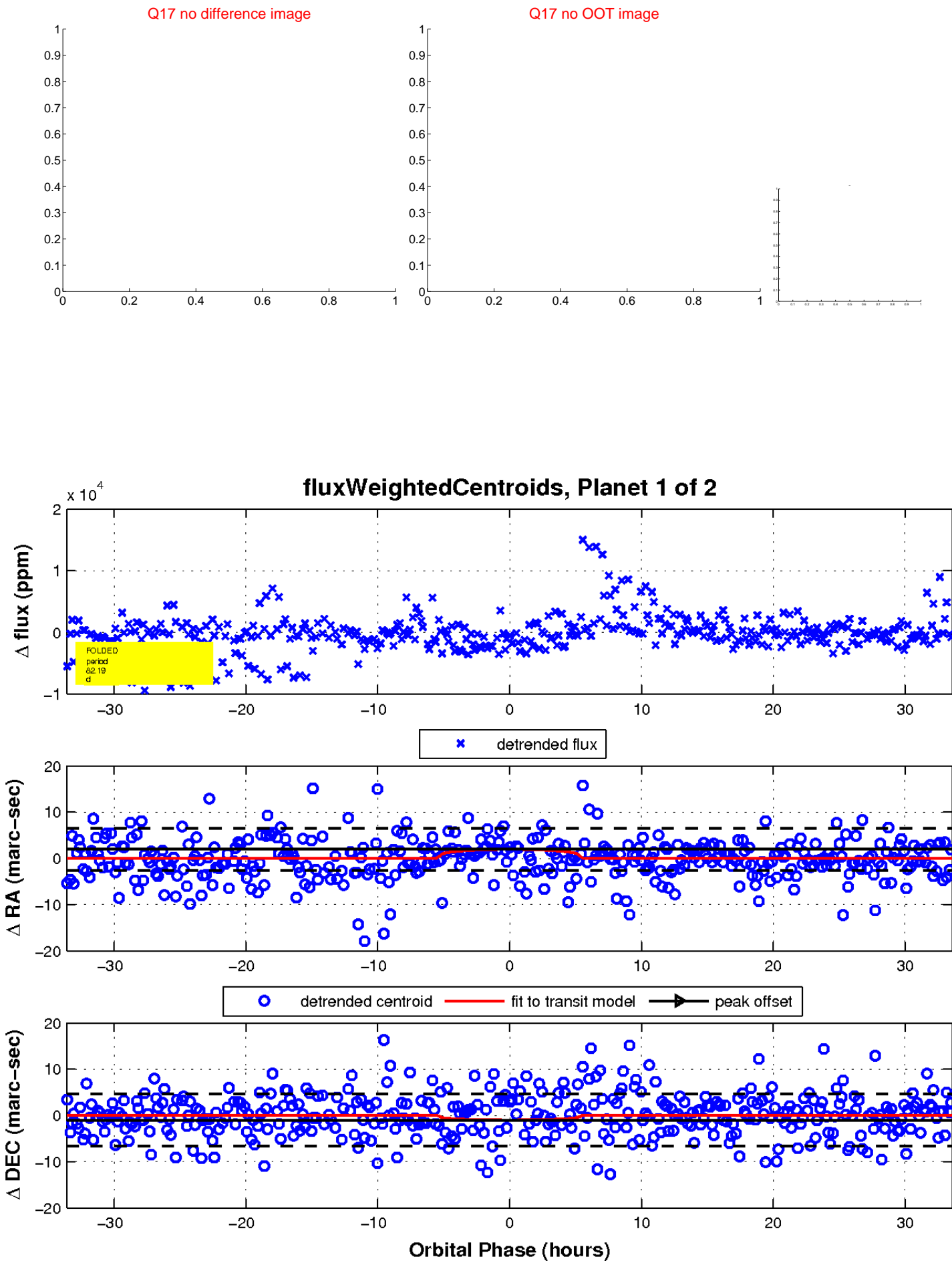
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

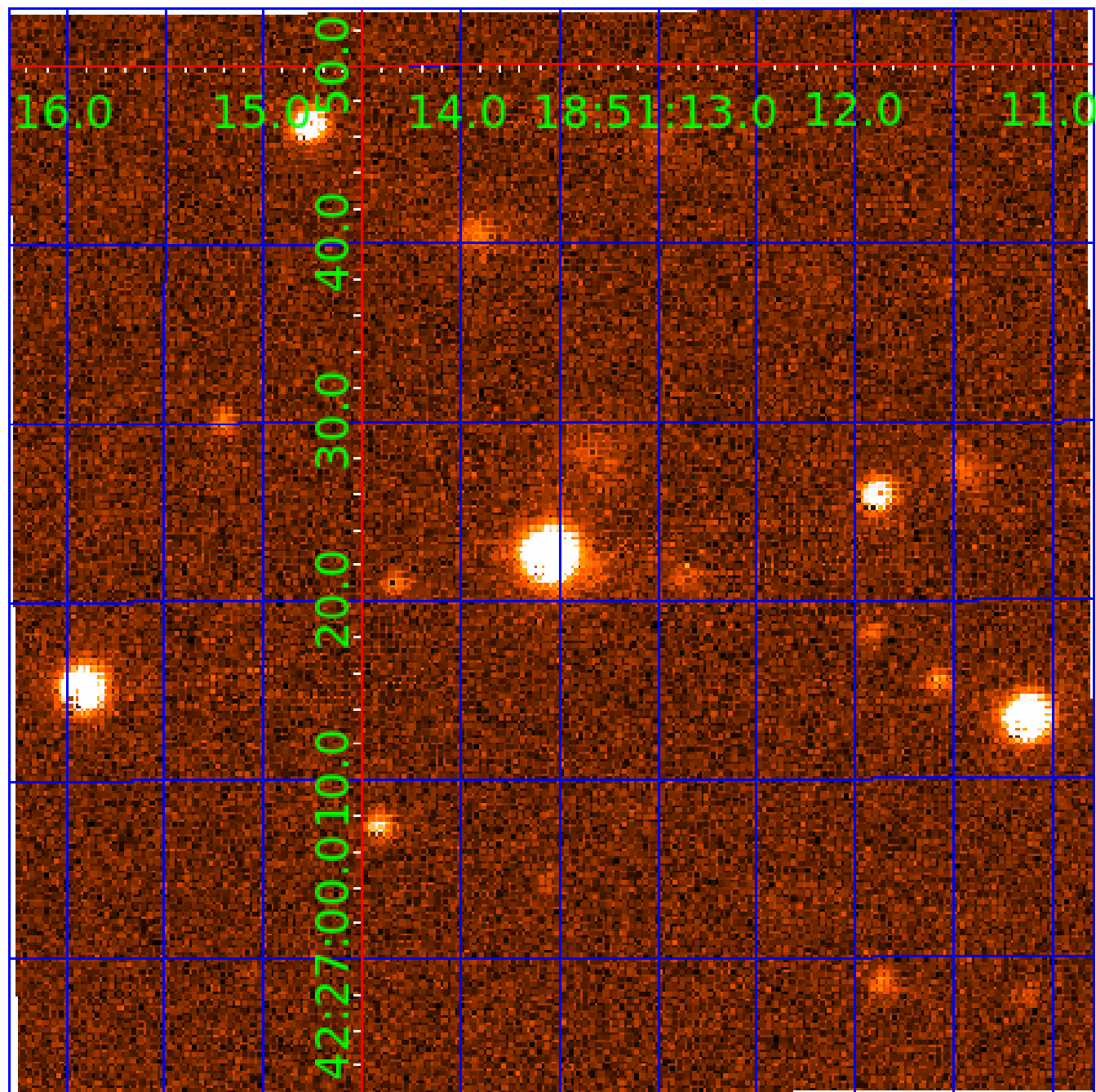


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006925256

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
006925256-01	OBS	No	82.187917	164.268840	2831.7	11.197	11.1	7.0	0.56	3673	2.86	0.55
006925256-02	OBS	No	78.130633	171.955459	2006.5	4.703	11.8	5.7	0.56	3673	2.53	0.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006925256-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
006925256-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

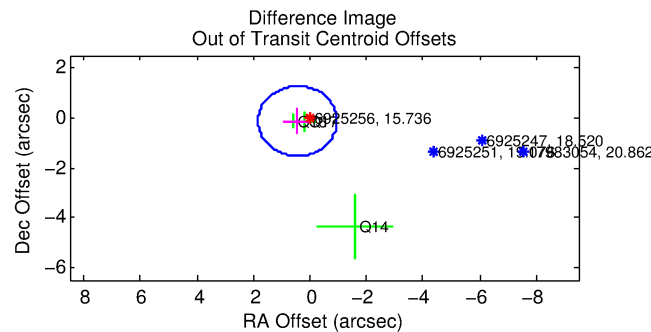
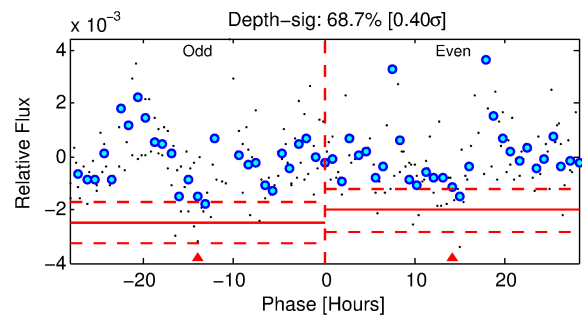
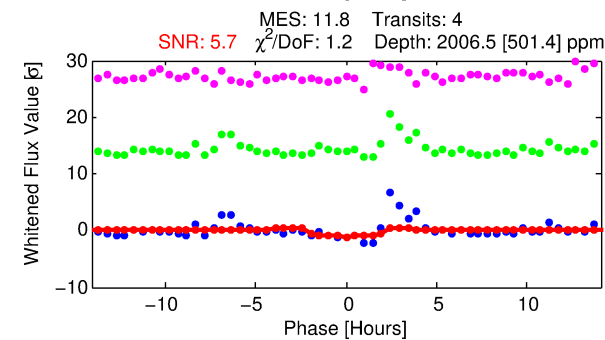
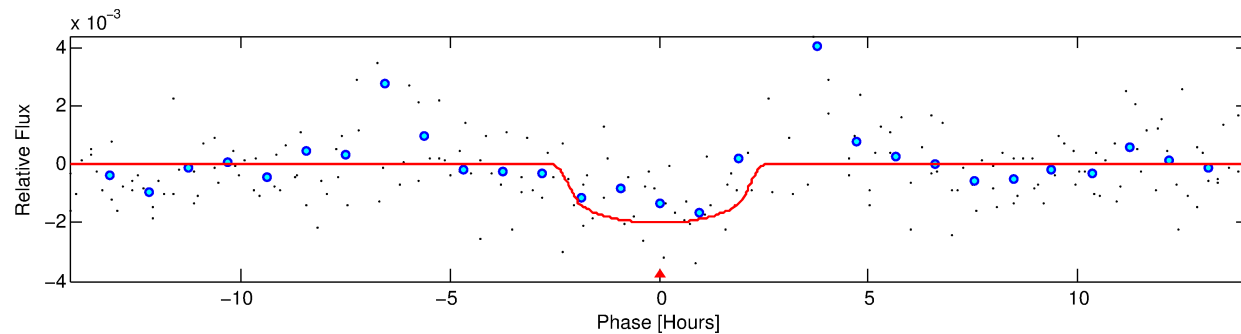
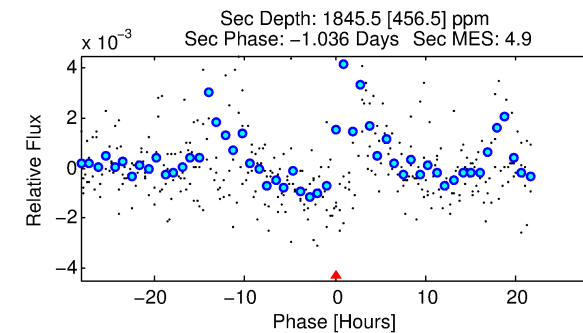
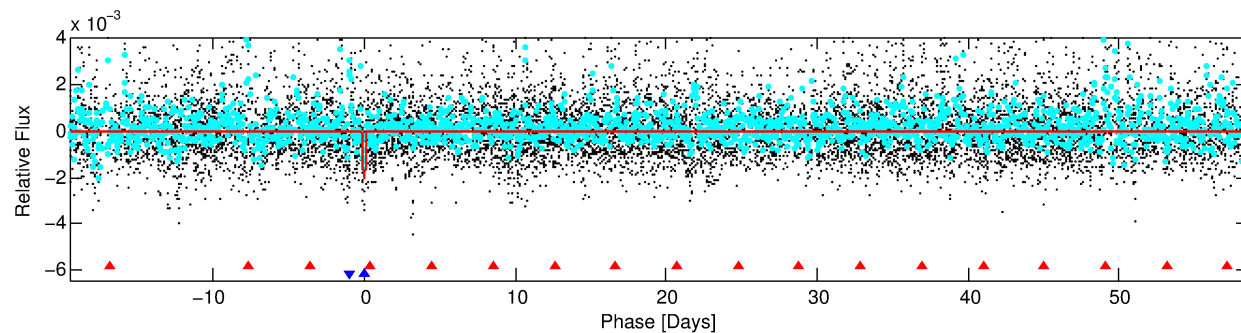
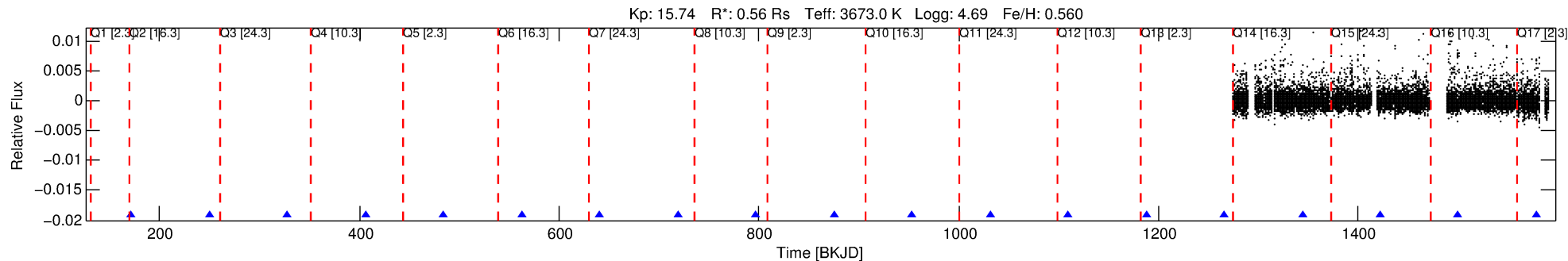
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006925256-02

No Significant Match Found

DV One-Page Summary

KIC: 6925256 Candidate: 2 of 2 Period: 78.131 d



DV Fit Results:

Period = 78.13063 [0.00452] d
Epoch = 171.9555 [0.0764] BKJD
Rp/R* = 0.0414 [0.0728]
a/R* = 115.39 [644.23]
b = 0.51 [8.33]
Seff = 0.59 [0.12]
Teq = 223 [12] K
Rp = 2.53 [4.47] Re
a = 0.2951 [0.0337] AU
Ag = 13850.38 [48966.37] [0.28σ]
Teff = 3744 [3308] K [1.06σ]

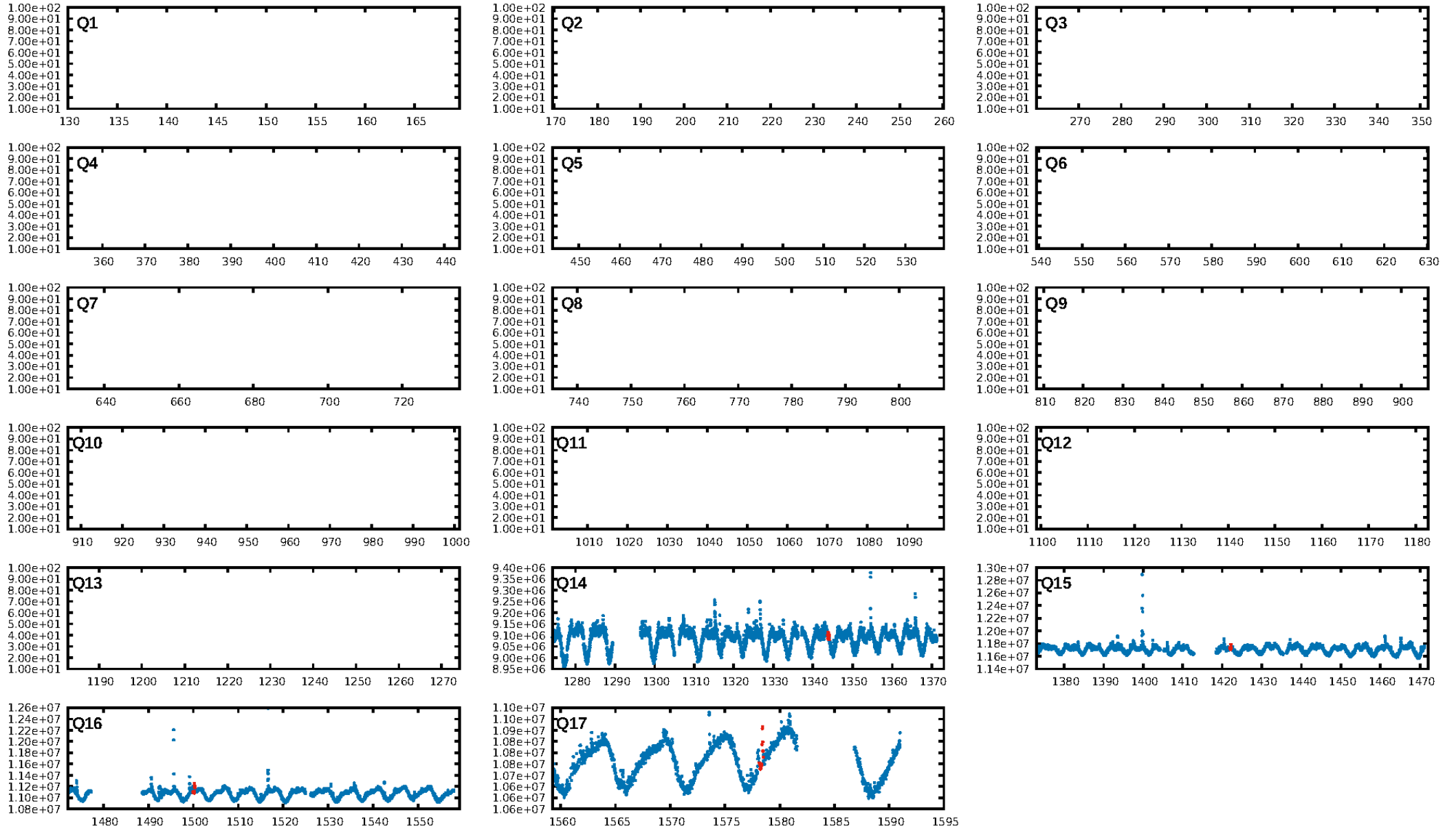
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [8.02σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 79.6%
Bootstrap-pfa: 8.12e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.78
Centroid-sig: 5.1%
Centroid-so: 1.302 arcsec [1.03σ]
OotOffset-rm: 0.466 arcsec [1.00σ]
KicOffset-rm: 0.481 arcsec [1.04σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

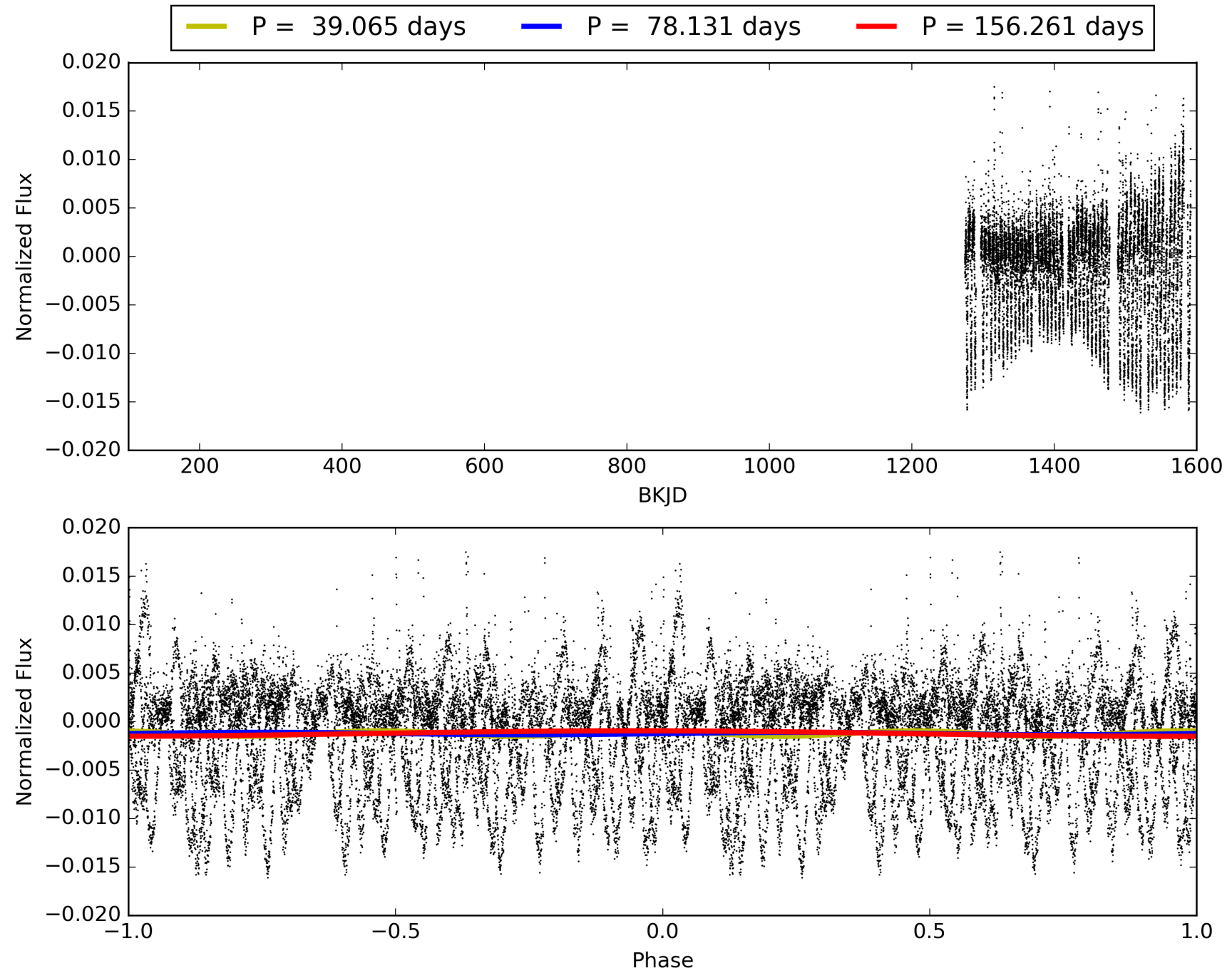
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:58:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006925256-02, PDC Light Curves

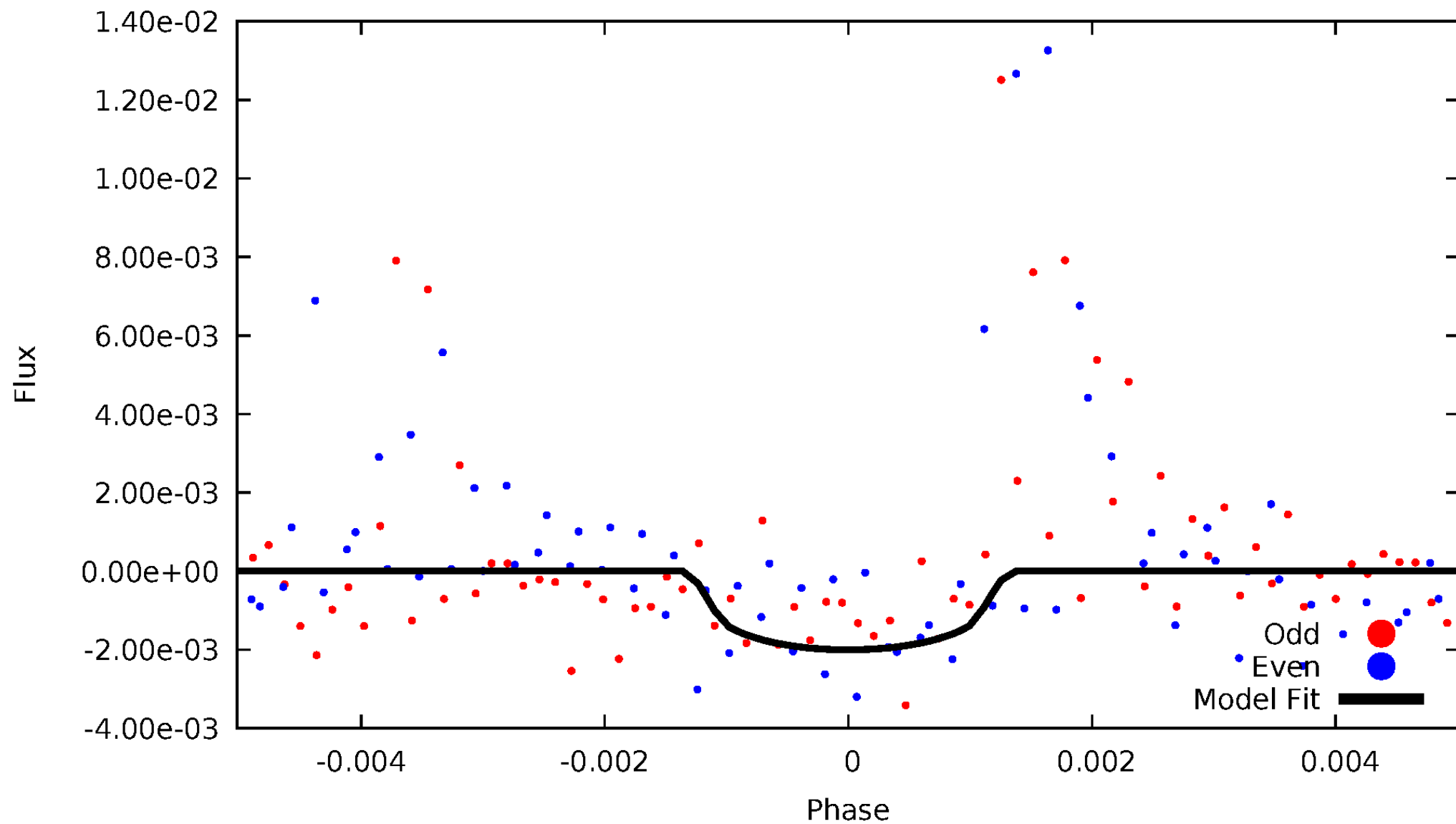


TCE 006925256-02



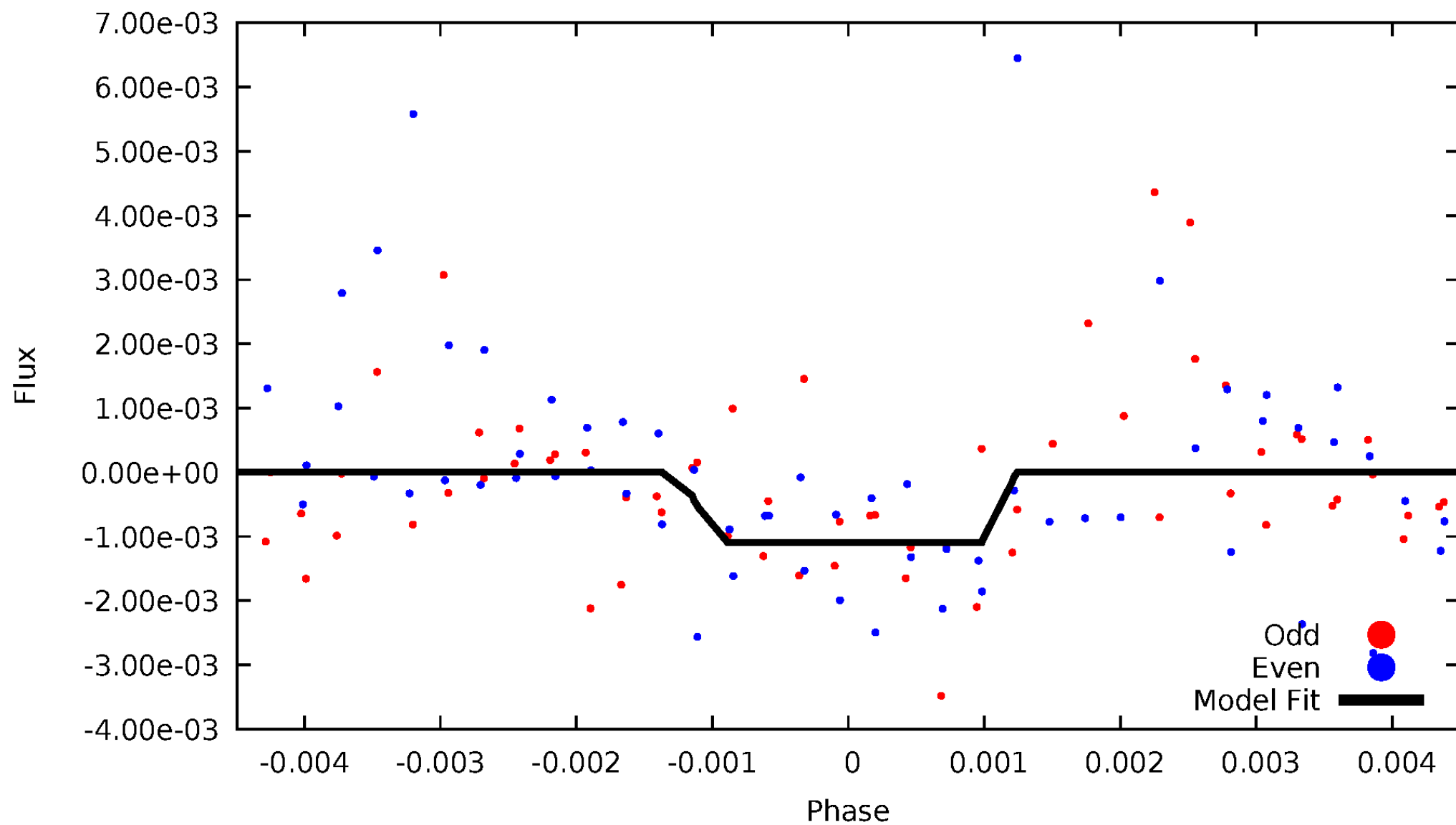
DV Odd/Even

TCE 006925256-02



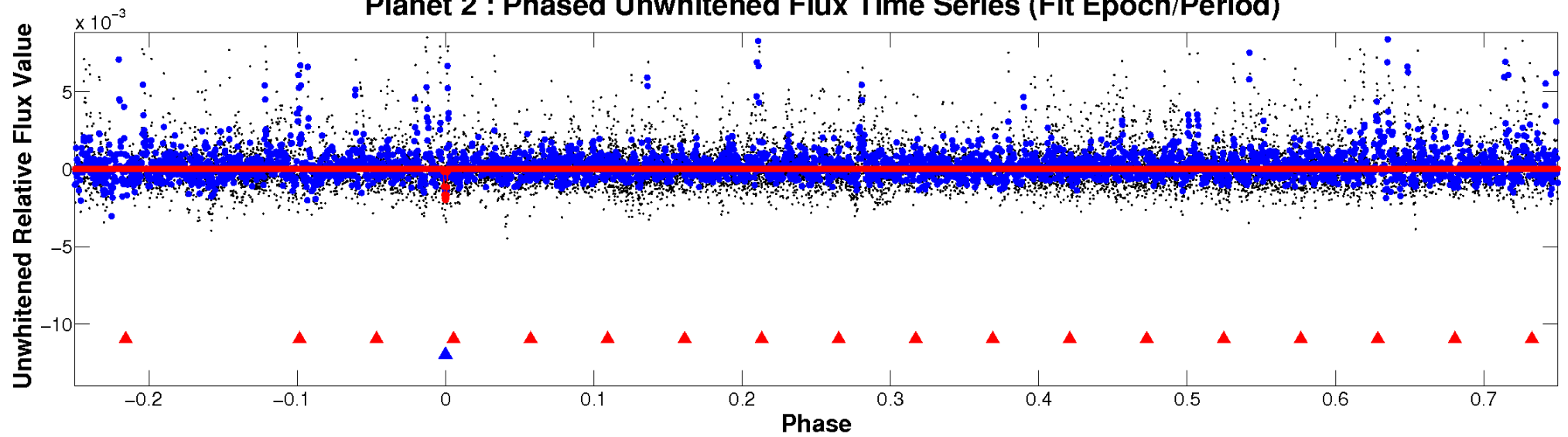
ALT Odd/Even

TCE 006925256-02

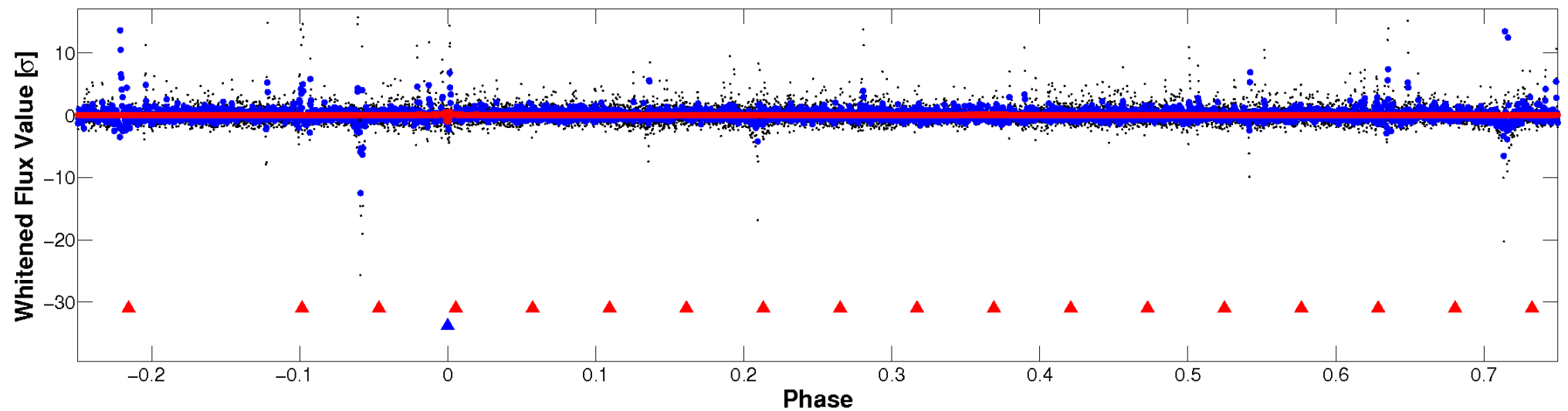


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

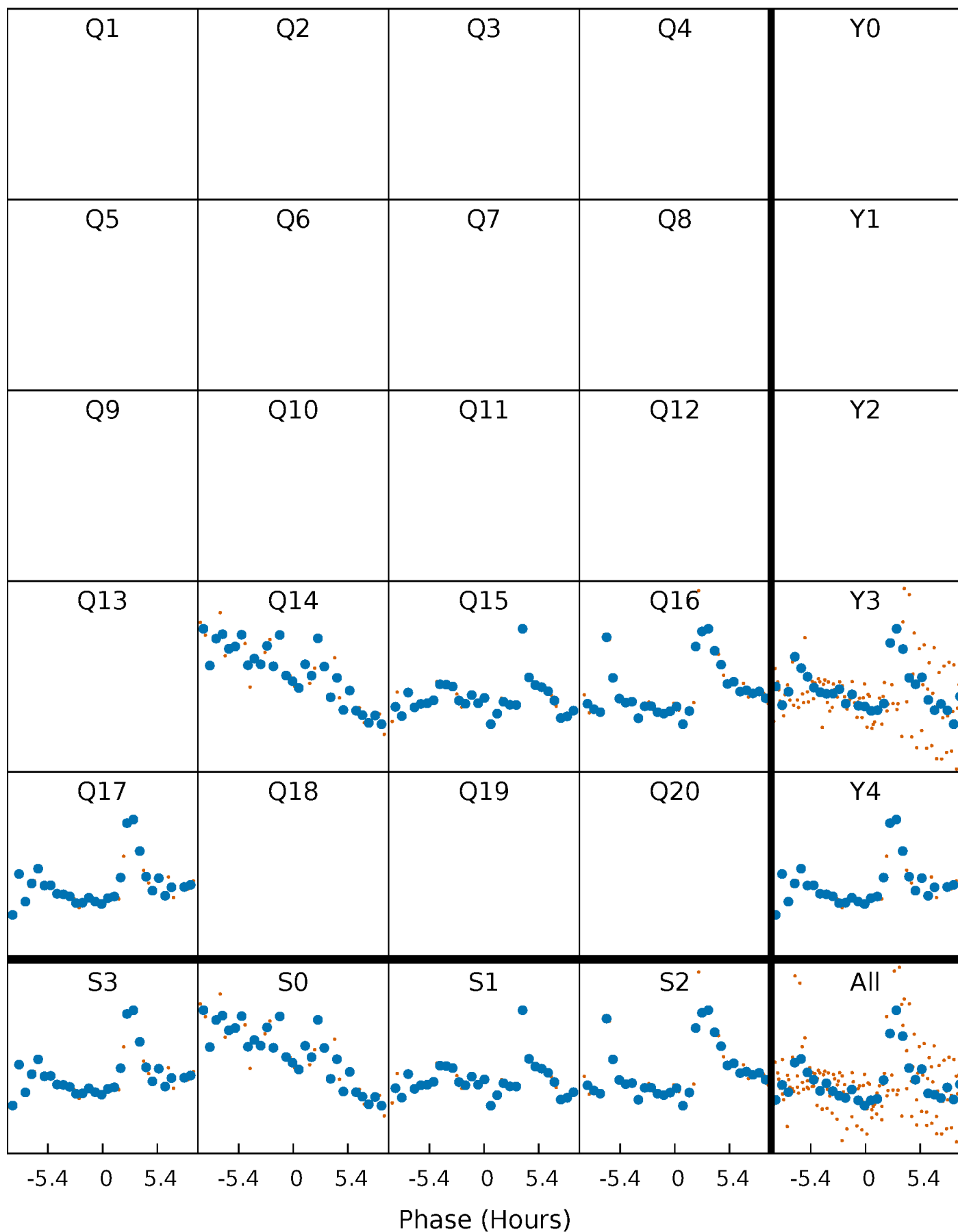


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



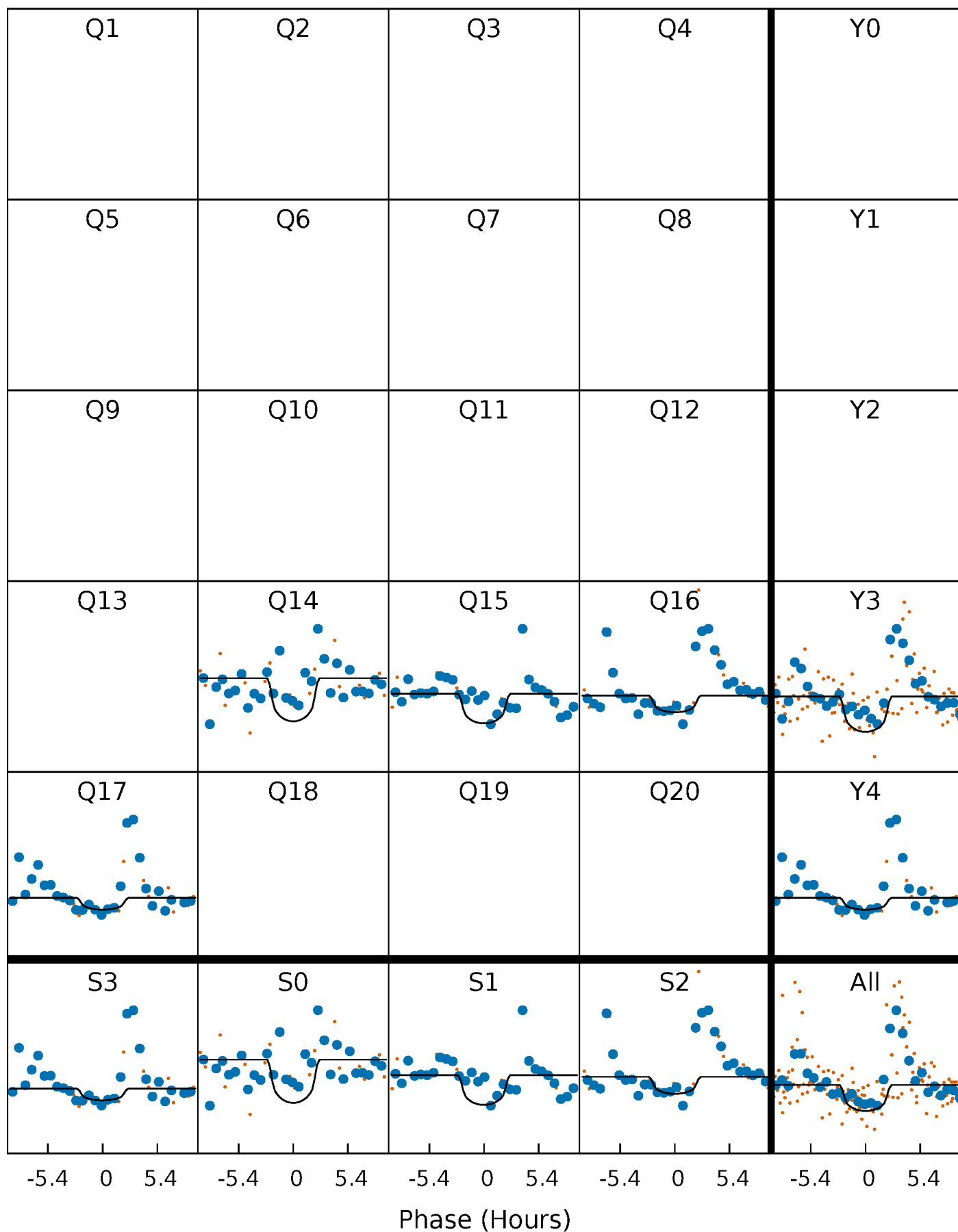
PDC Quarter-Phased Transit Curves

TCE 006925256-02 P= 78.130633 Days $T_0=171.955459$ (BKJD)



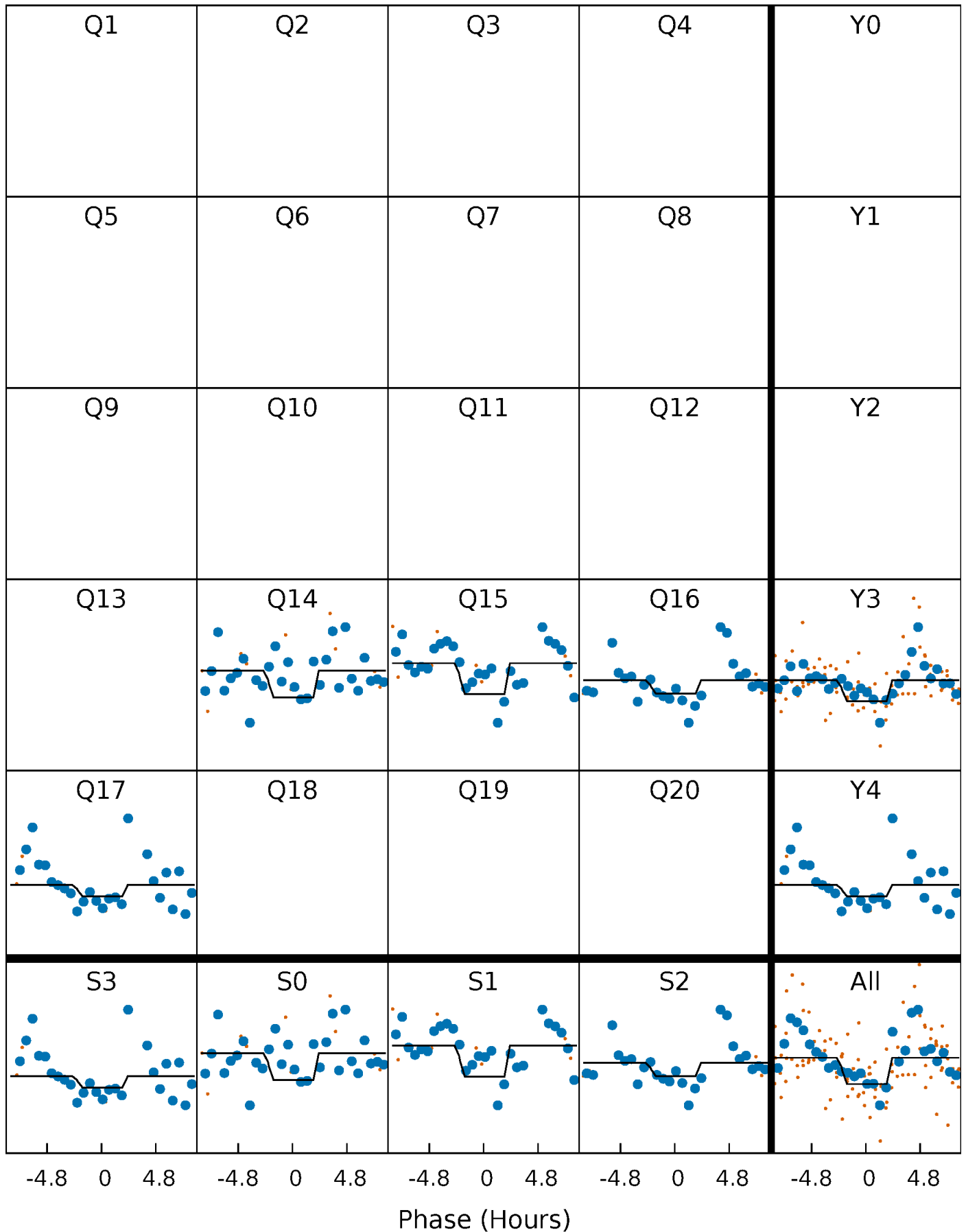
DV Quarter-Phased Transit Curves

TCE 006925256-02 P= 78.130633 Days $T_0=171.955459$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

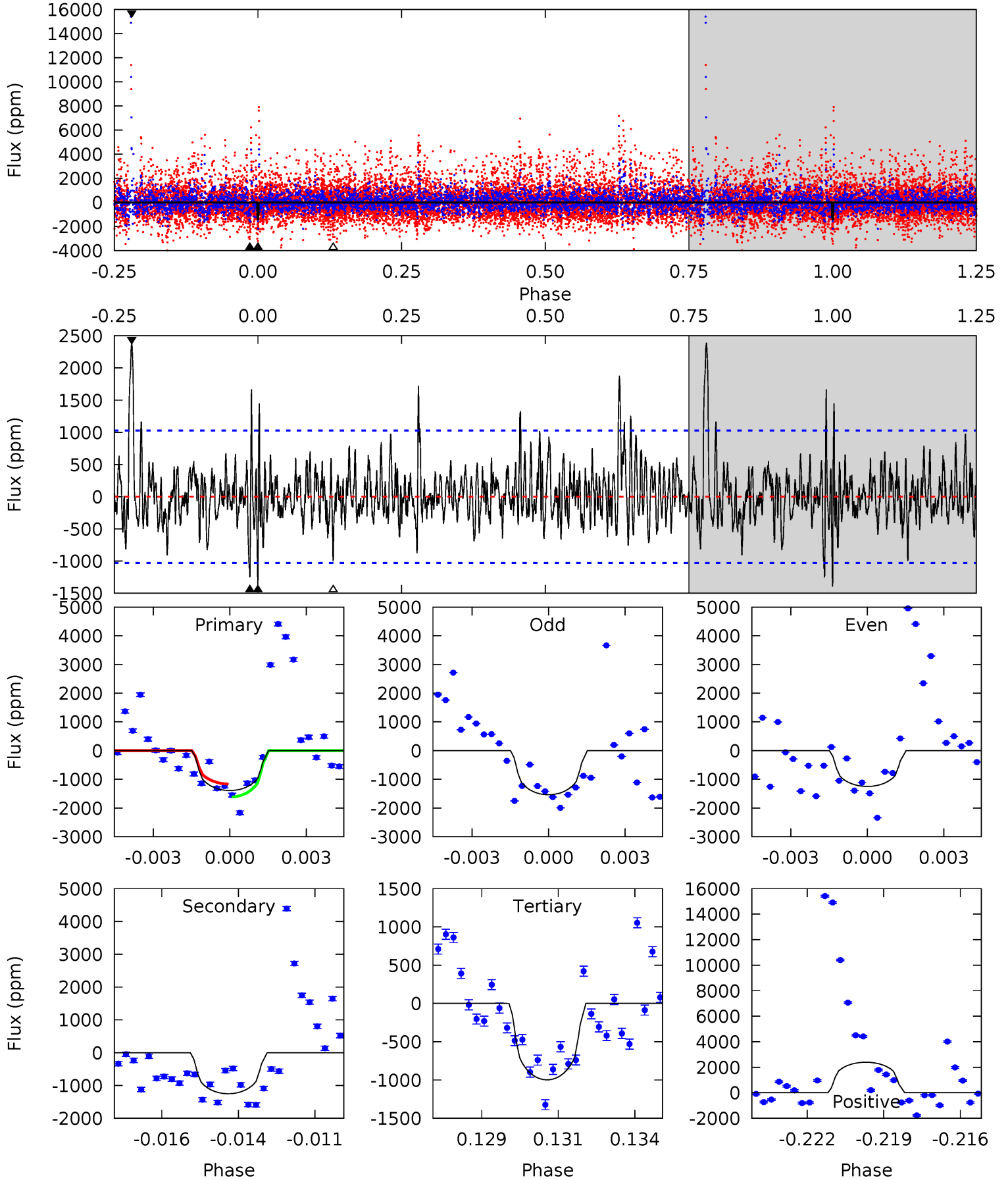
TCE 006925256-02 P= 78.137093 Days $T_0=171.829008$ (BKJD)



DV Model-Shift Uniqueness Test

006925256-02, P = 78.130633 Days, E = 171.955459 Days

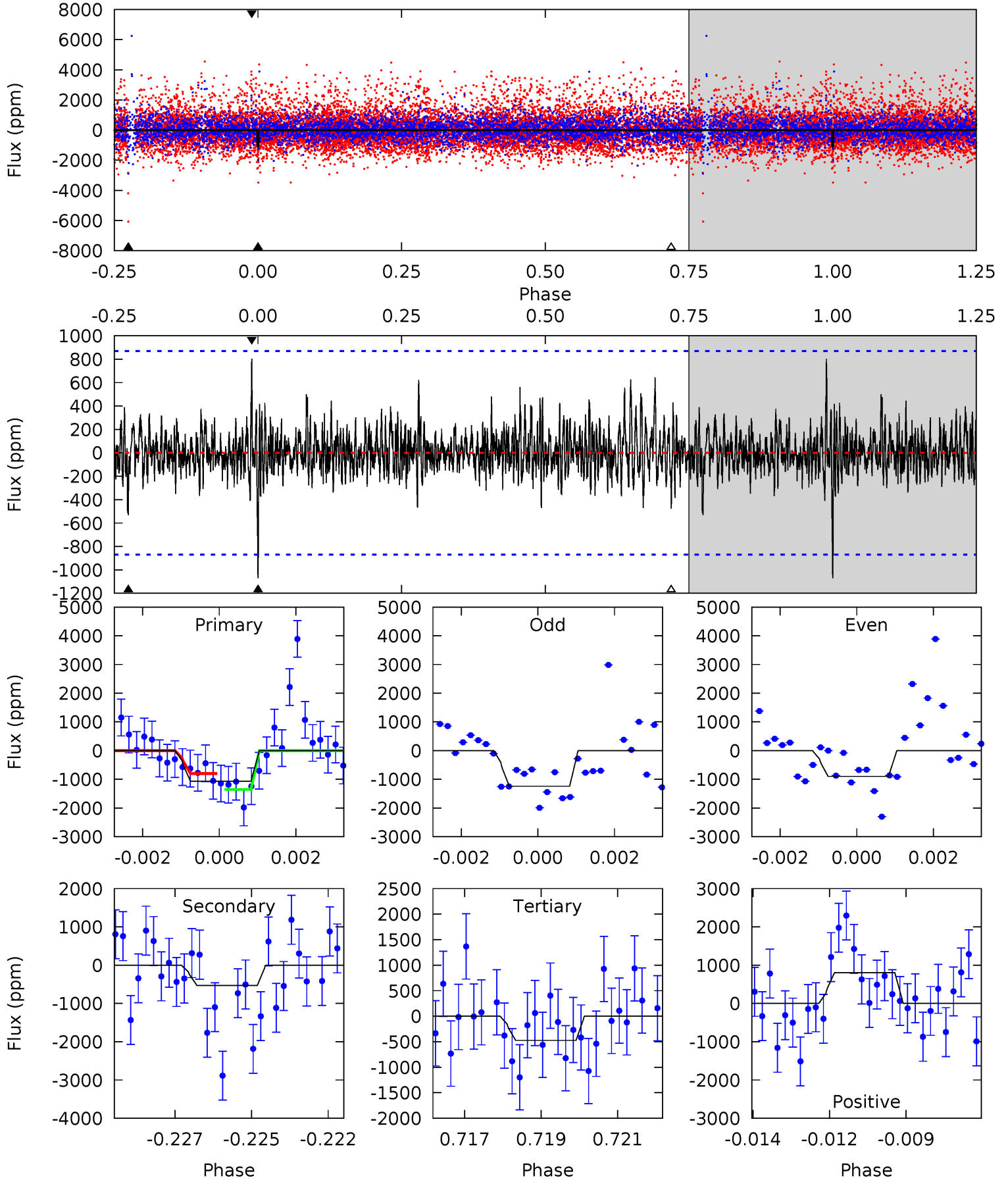
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.14	6.41	5.11	12.3	5.27	3.00	1.86	2.03	-5.12	1.30	-5.85	0.65	1.00	0.63	1.16



Alt Model-Shift Uniqueness Test

006925256-02, P = 78.137093 Days, E = 171.829008 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.52	3.23	2.89	4.90	5.30	3.04	0.94	3.63	1.62	0.34	-1.67	1.01	0.88	0.43	1.69



Stellar Parameters For KIC 006925256

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3673^{+132}_{-132}	$4.691^{+0.080}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.560^{+0.032}_{-0.081}$	$0.561^{+0.040}_{-0.069}$	$4.498^{+1.756}_{-0.469}$
	+4%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+7%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006925256-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1251 ± 195	$3.90^{+3.74}_{-2.58}$	307^{+14}_{-13}	3030^{+1325}_{-487}	3920^{+31537}_{-2859}
Alt.	-530 ± 164	$3.90^{+3.46}_{-2.60}$	308^{+13}_{-14}	2704^{+1055}_{-420}	1612^{+13681}_{-1191}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

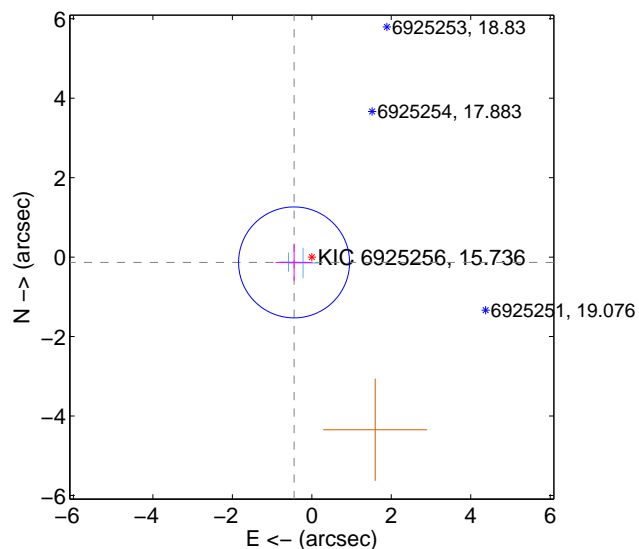
Supplemental centroid analysis for 006925256-02. Kepler magnitude: 15.74. Transit SNR 5.70

There are 2 quarters with good PRF difference image offsets

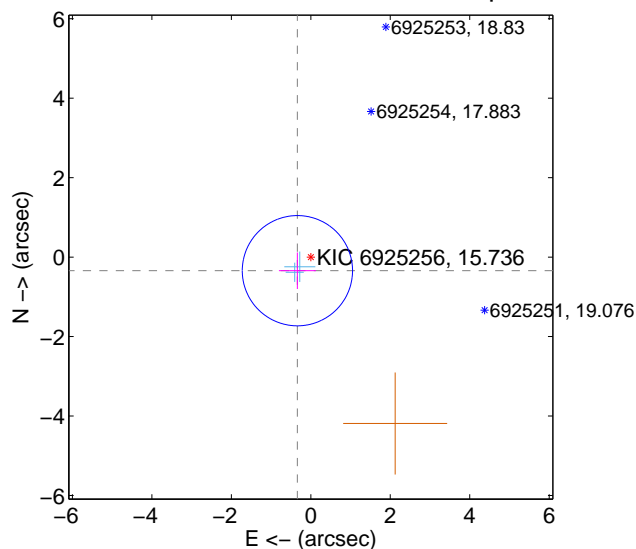
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.466 ± 0.465	1.00	0.446 ± 0.466	-0.134 ± 0.459
PRF-fit source offset from KIC position	0.481 ± 0.463	1.04	0.337 ± 0.466	-0.342 ± 0.459
photometric centroid source offset	1.30 ± 1.26	1.03	1.28 ± 1.27	-0.24 ± 0.85

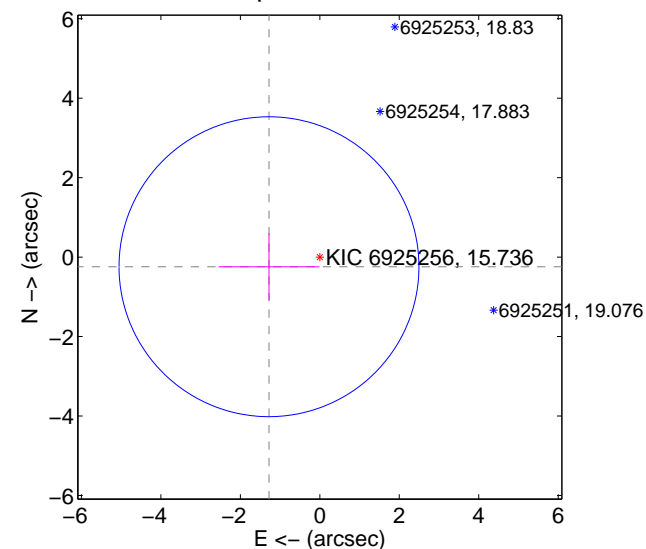
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



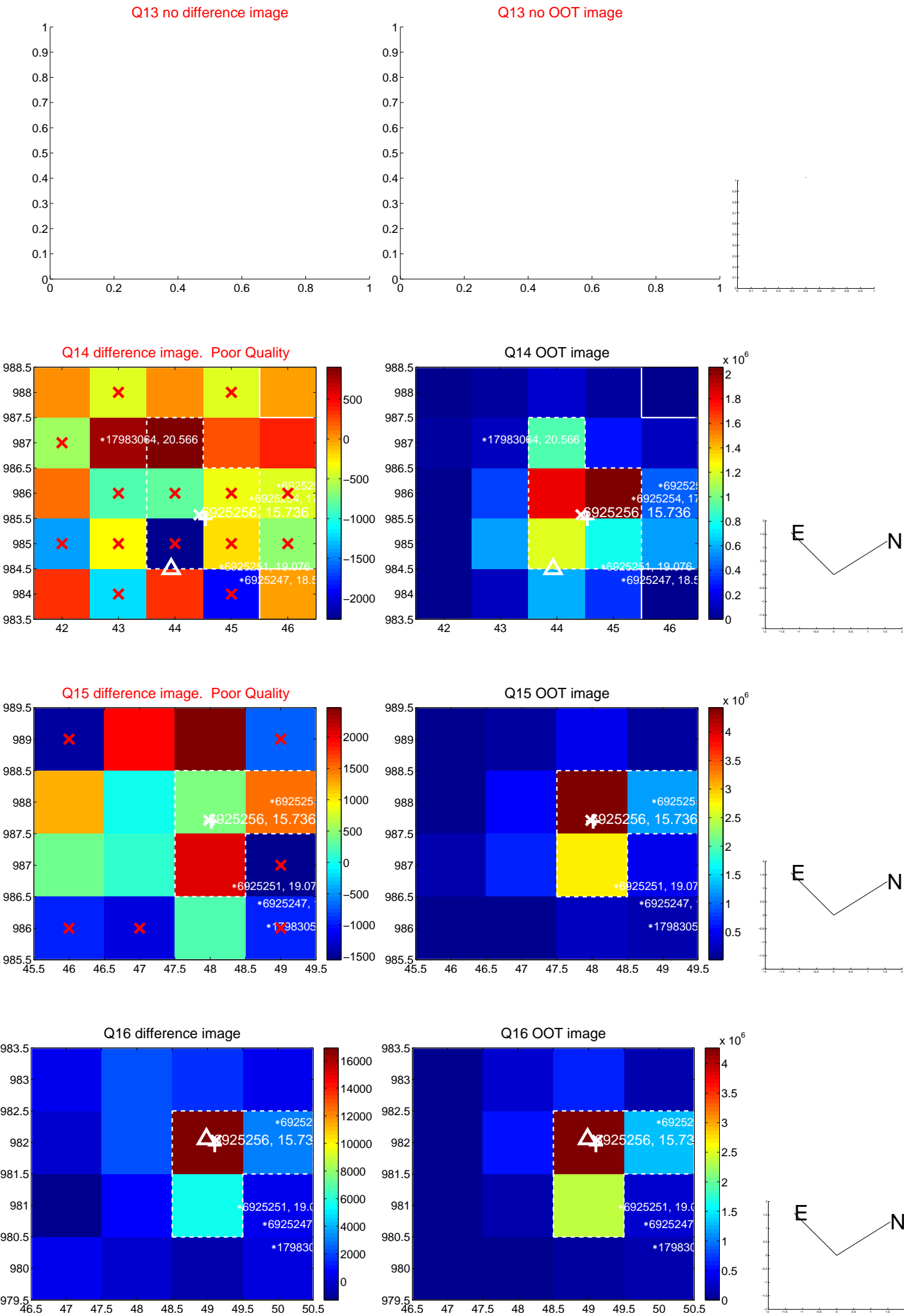
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



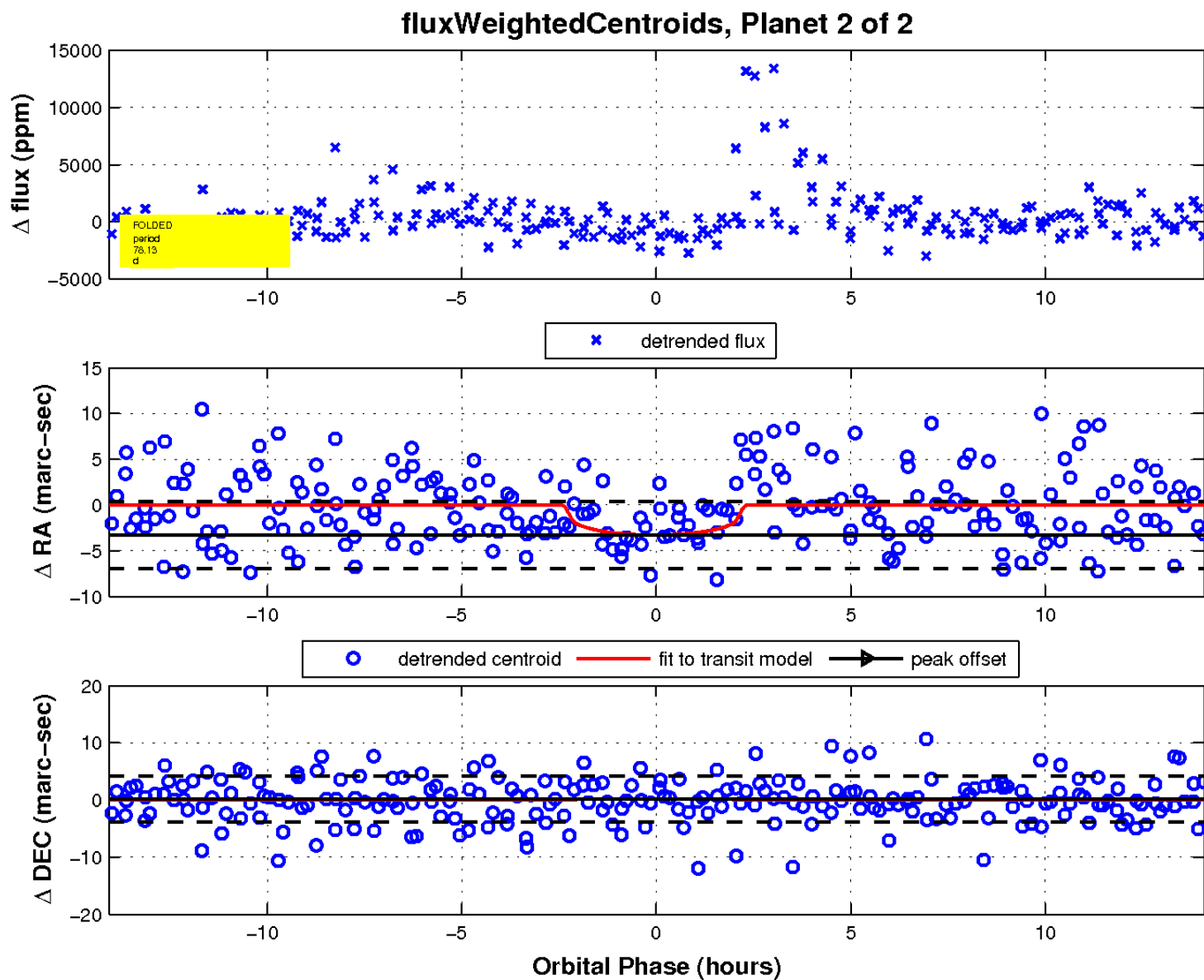
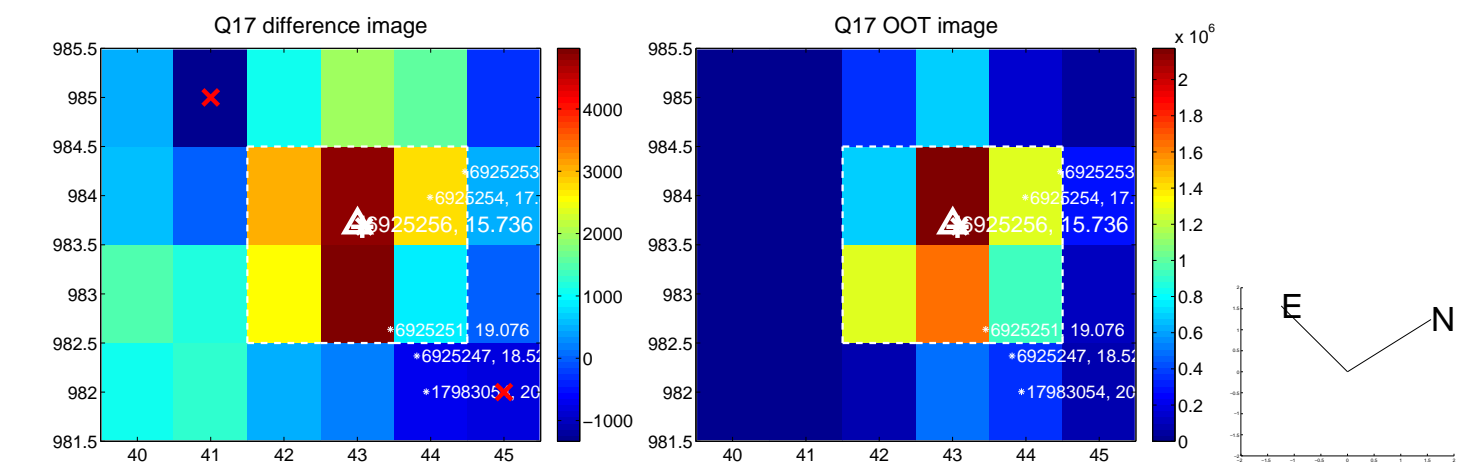
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

