

KIC 009791509

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})
009791509-01	OBS	No	0.698553	131.924488	53.6	1.872	10.1	9.8	1.98	7992	1.68	40281.73
009791509-02	OBS	No	0.698510	132.214793	6.7	2.849	10.3	1.5	1.98	7992	0.52	40285.05
009791509-03	OBS	No	0.698562	131.698062	78.6	1.951	11.4	15.1	1.98	7992	1.82	40281.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009791509-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009791509-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
009791509-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

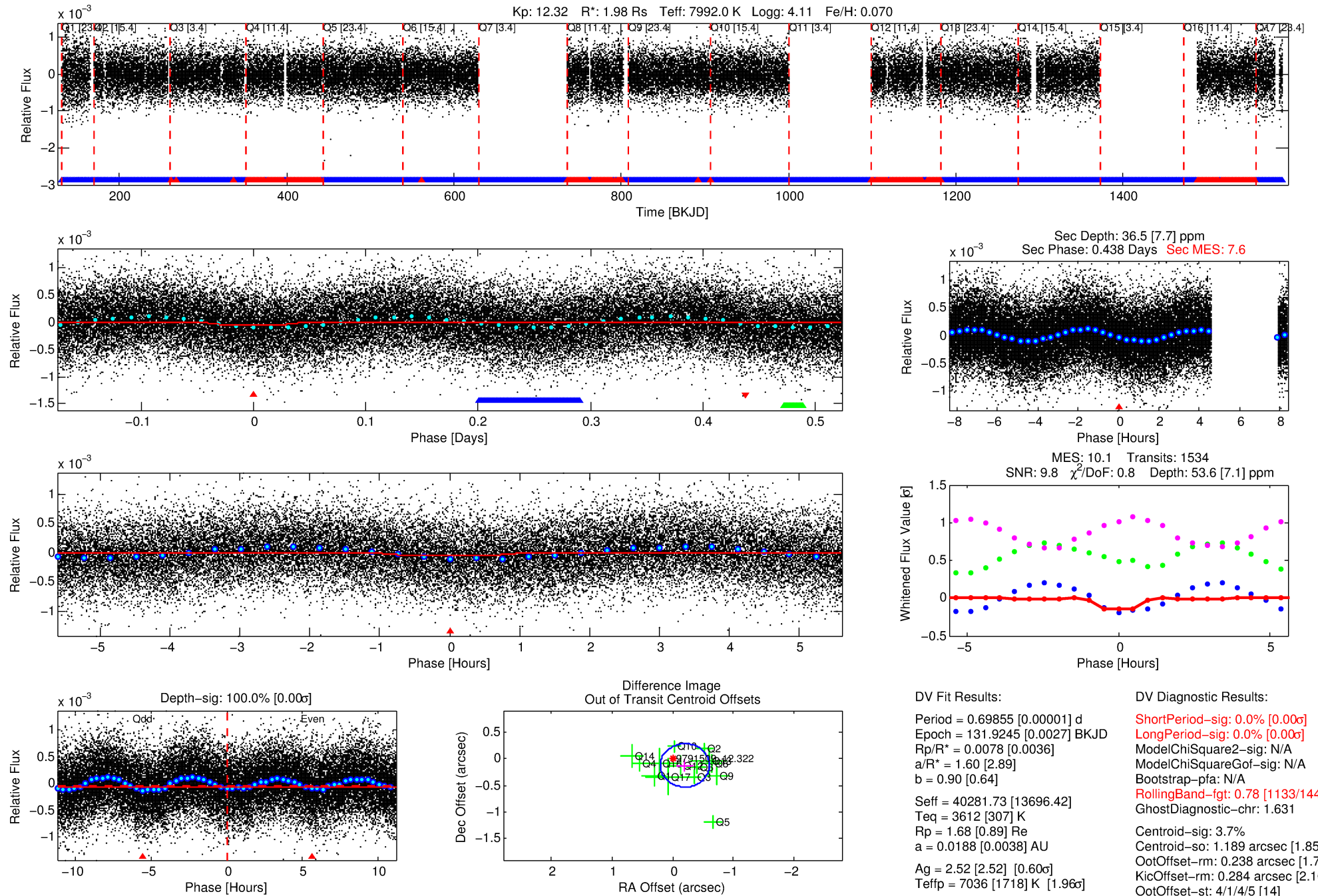
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009791509-01

No Significant Match Found

DV One-Page Summary

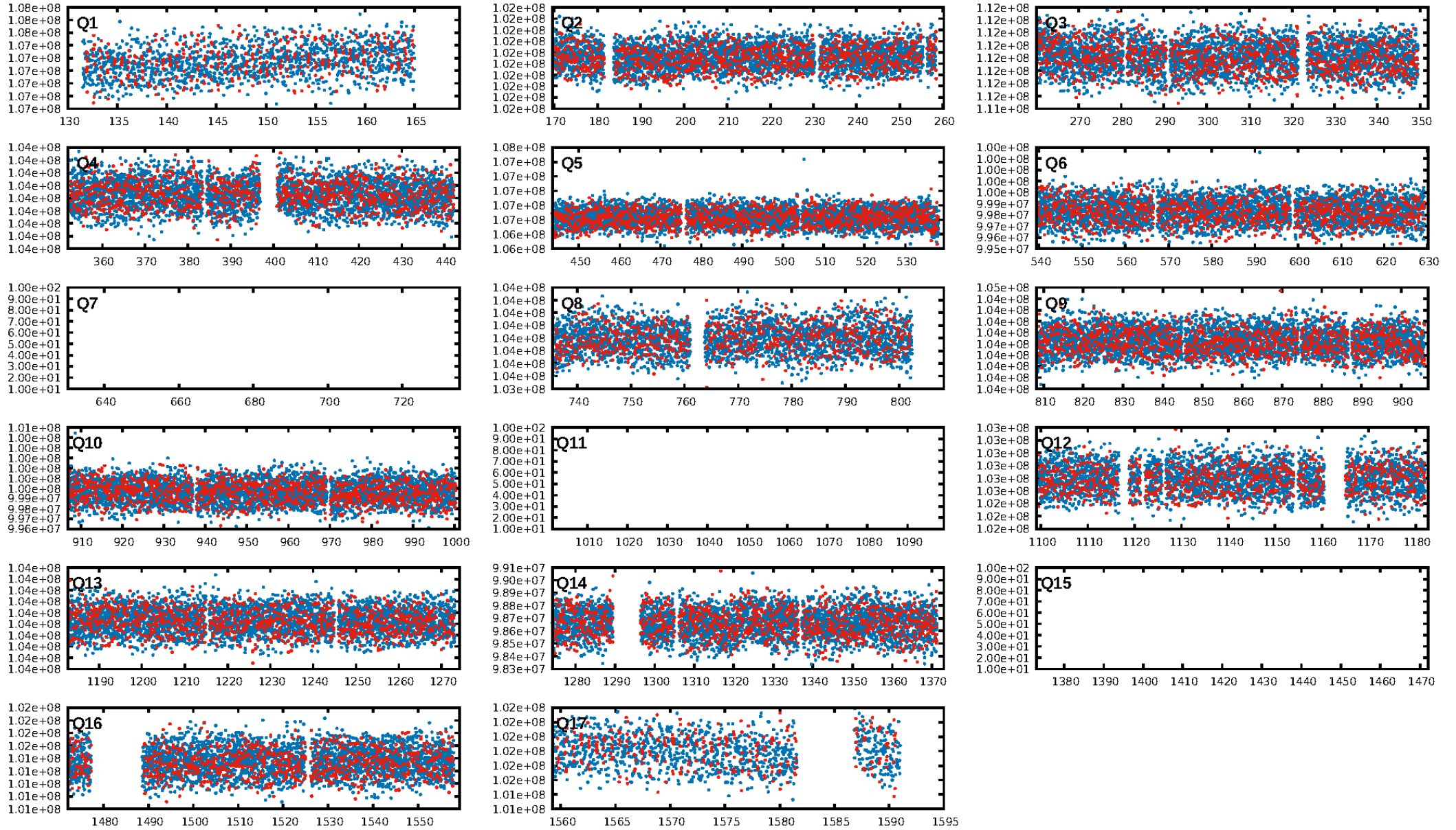
KIC: 9791509 Candidate: 1 of 3 Period: 0.699 d



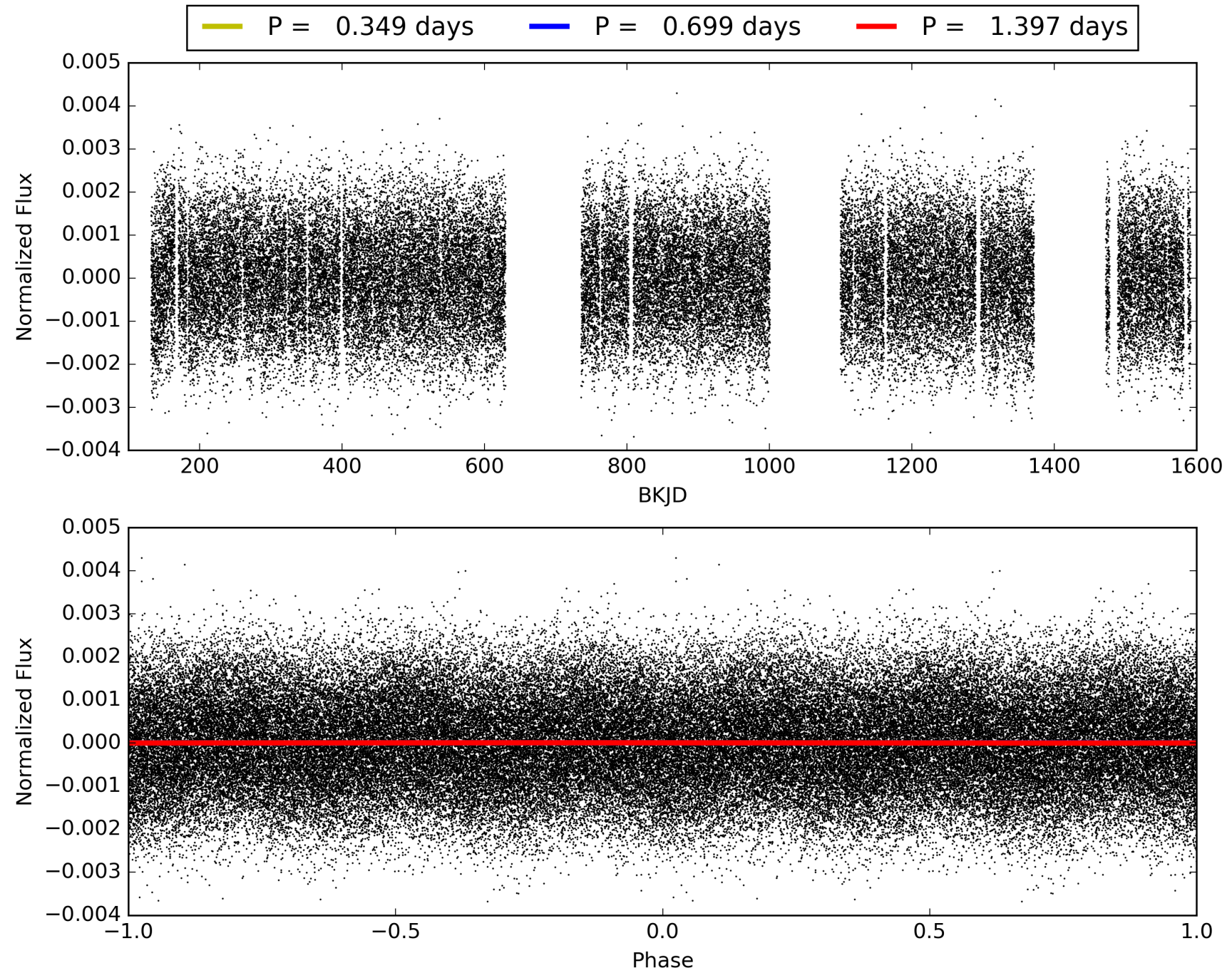
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:59:26 Z

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

TCE 009791509-01, PDC Light Curves

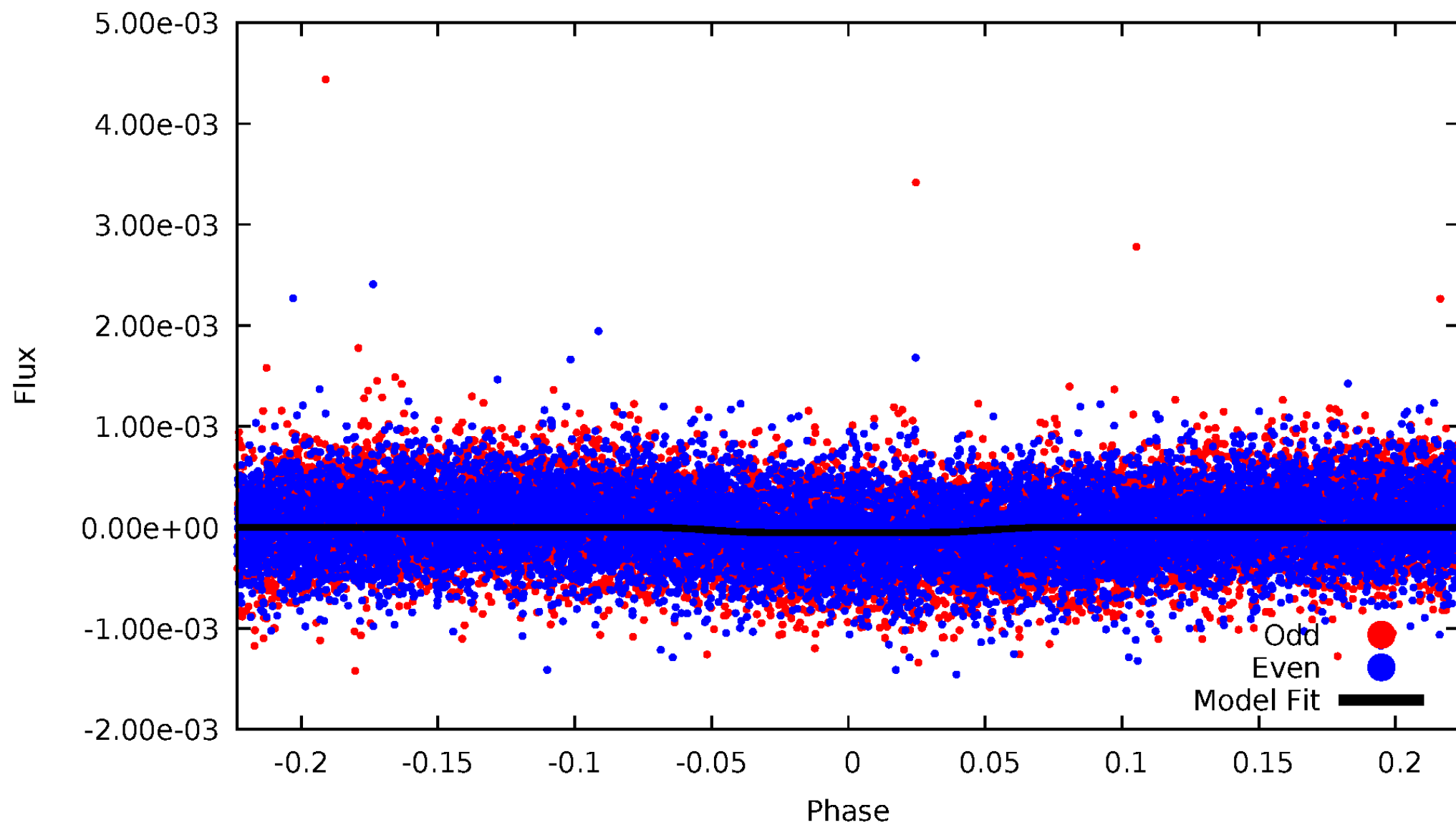


TCE 009791509-01



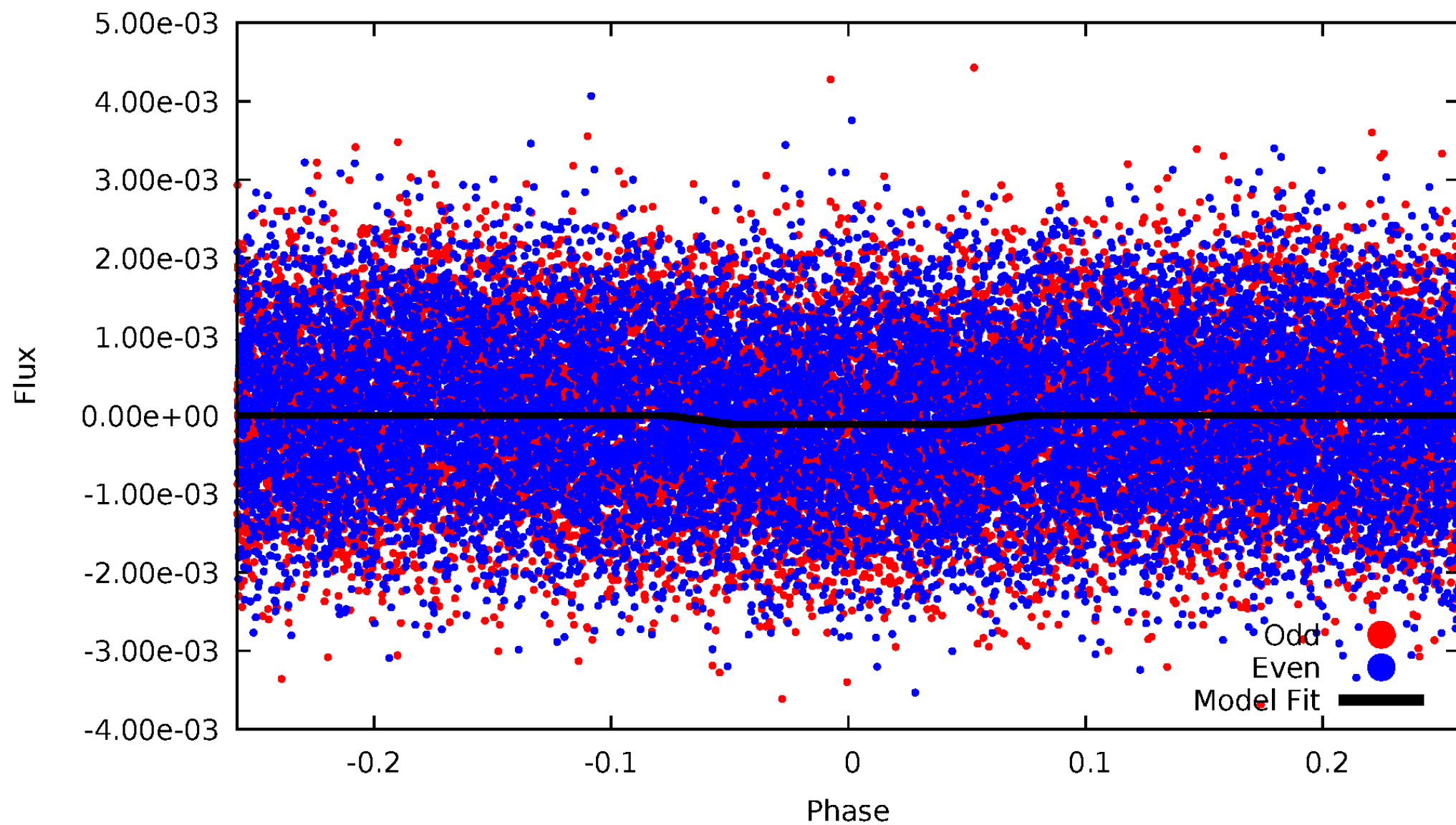
DV Odd/Even

TCE 009791509-01



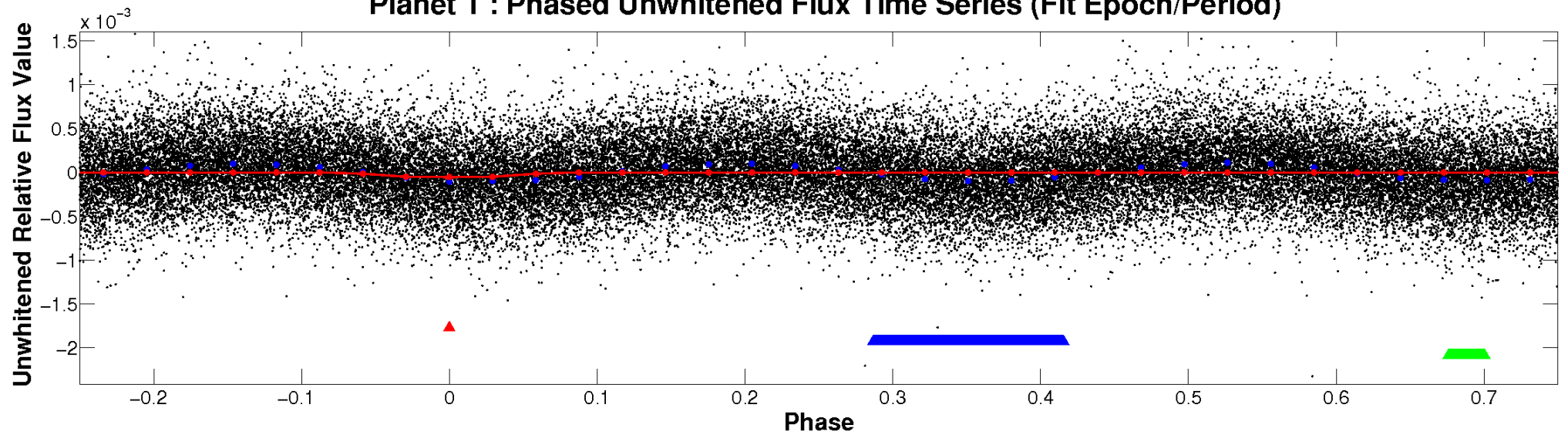
ALT Odd/Even

TCE 009791509-01

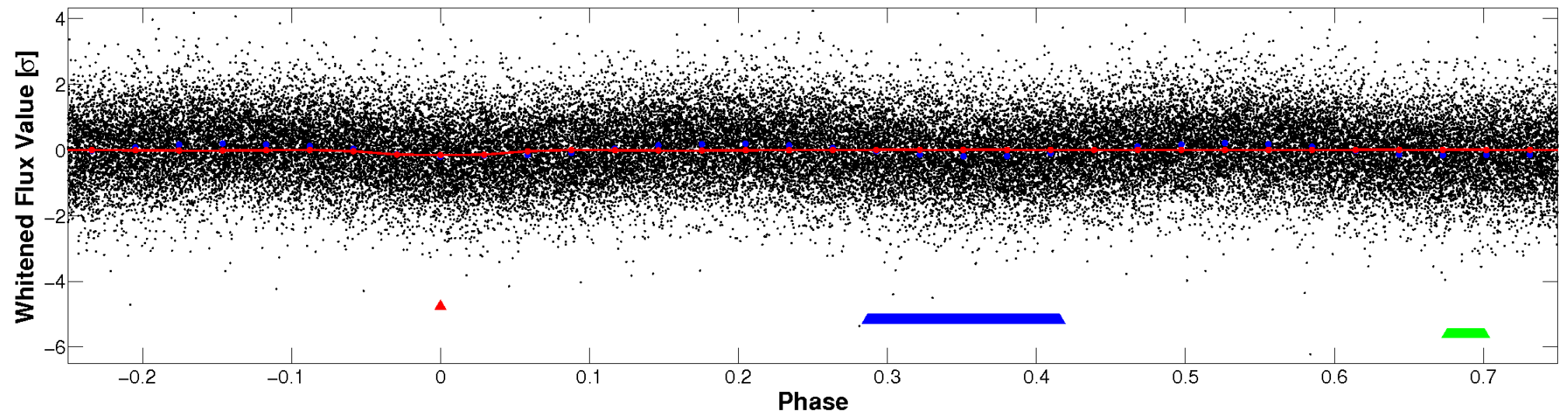


Non-Whitened Vs. Whitened Light Curve

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

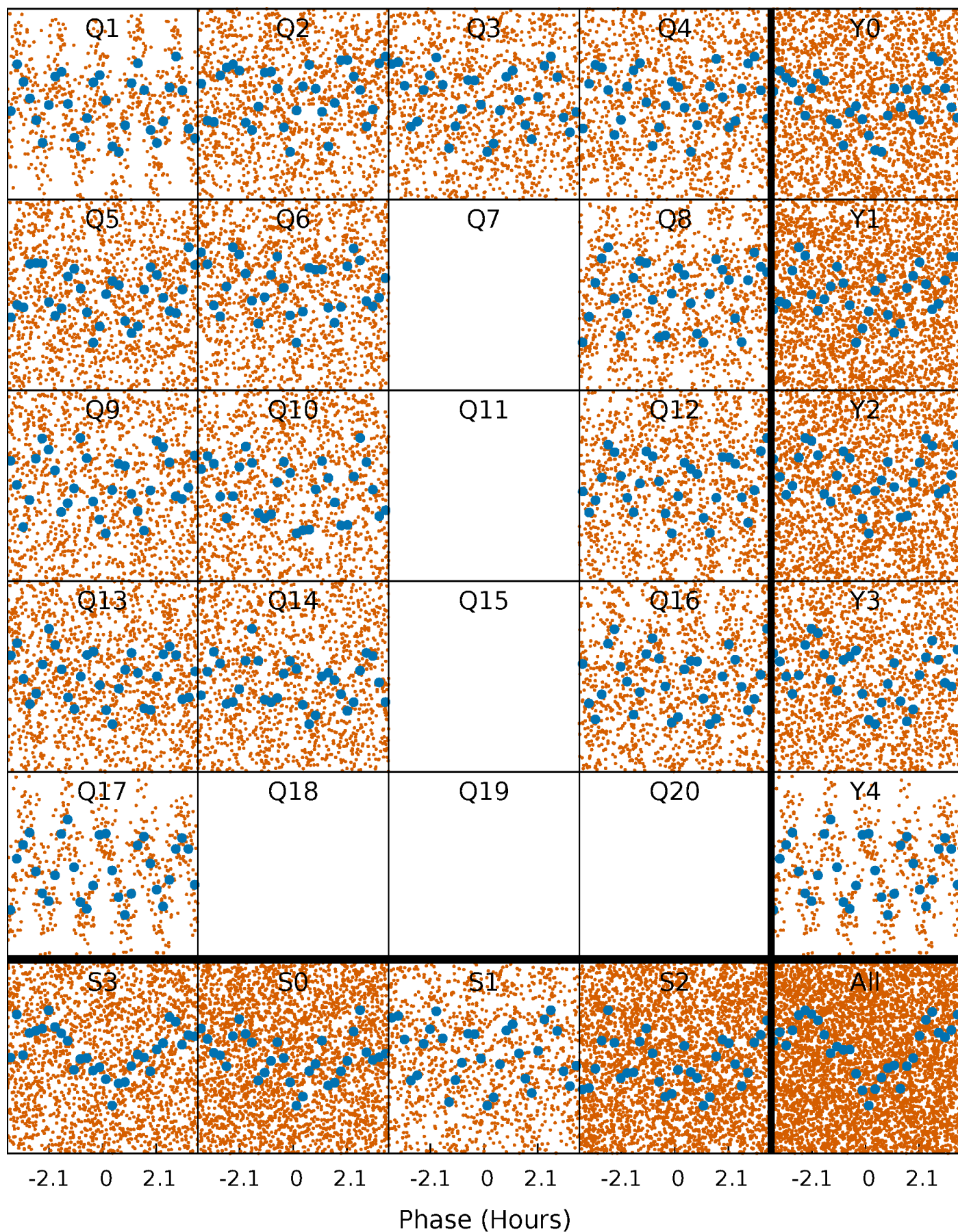


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



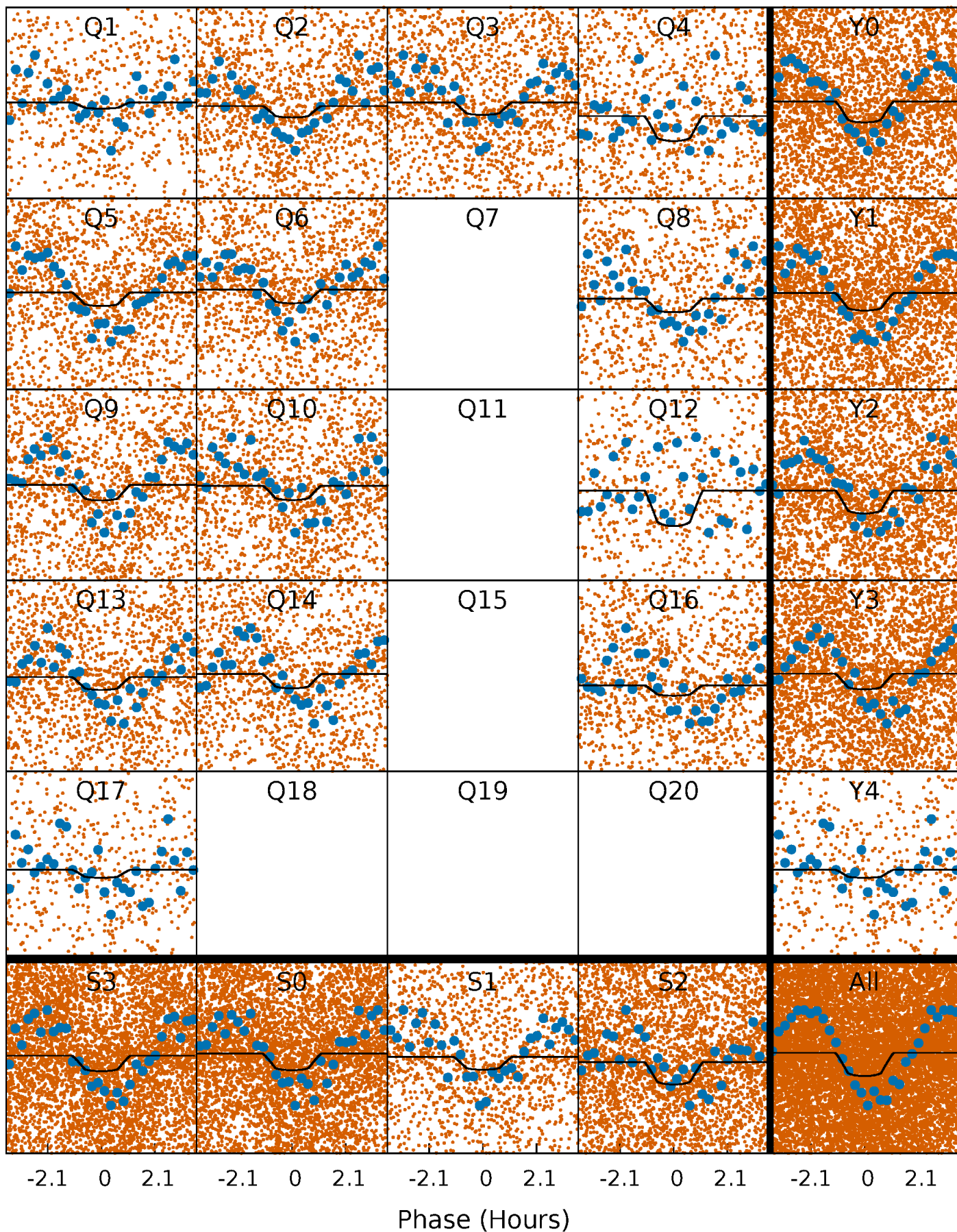
PDC Quarter-Phased Transit Curves

TCE 009791509-01 P= 0.698553 Days $T_0=131.924488$ (BKJD)



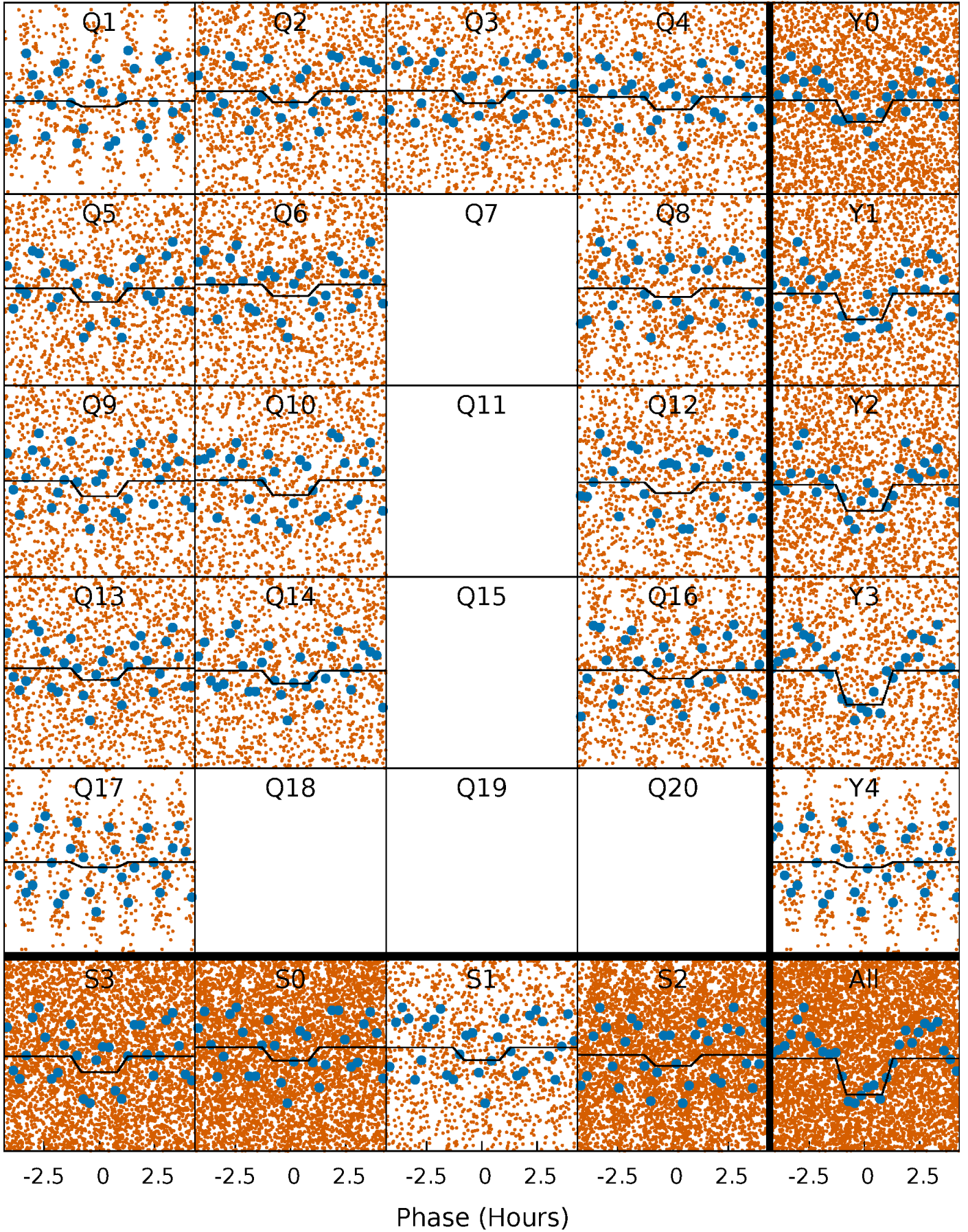
DV Quarter-Phased Transit Curves

TCE 009791509-01 P= 0.698553 Days $T_0=131.924488$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

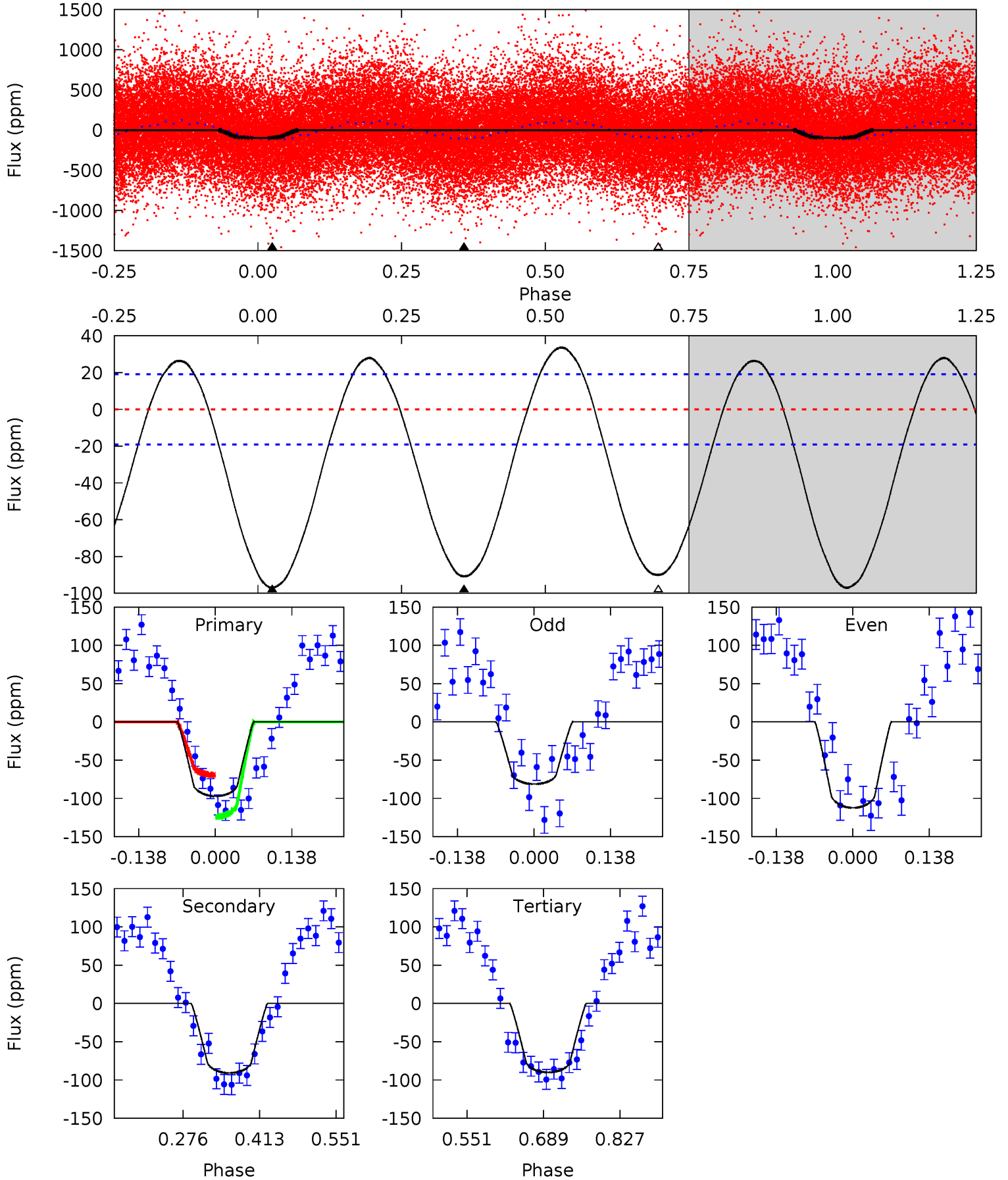
TCE 009791509-01 P= 0.698575 Days $T_0=131.923697$ (BKJD)



DV Model-Shift Uniqueness Test

009791509-01, P = 0.698553 Days, E = 131.225935 Days

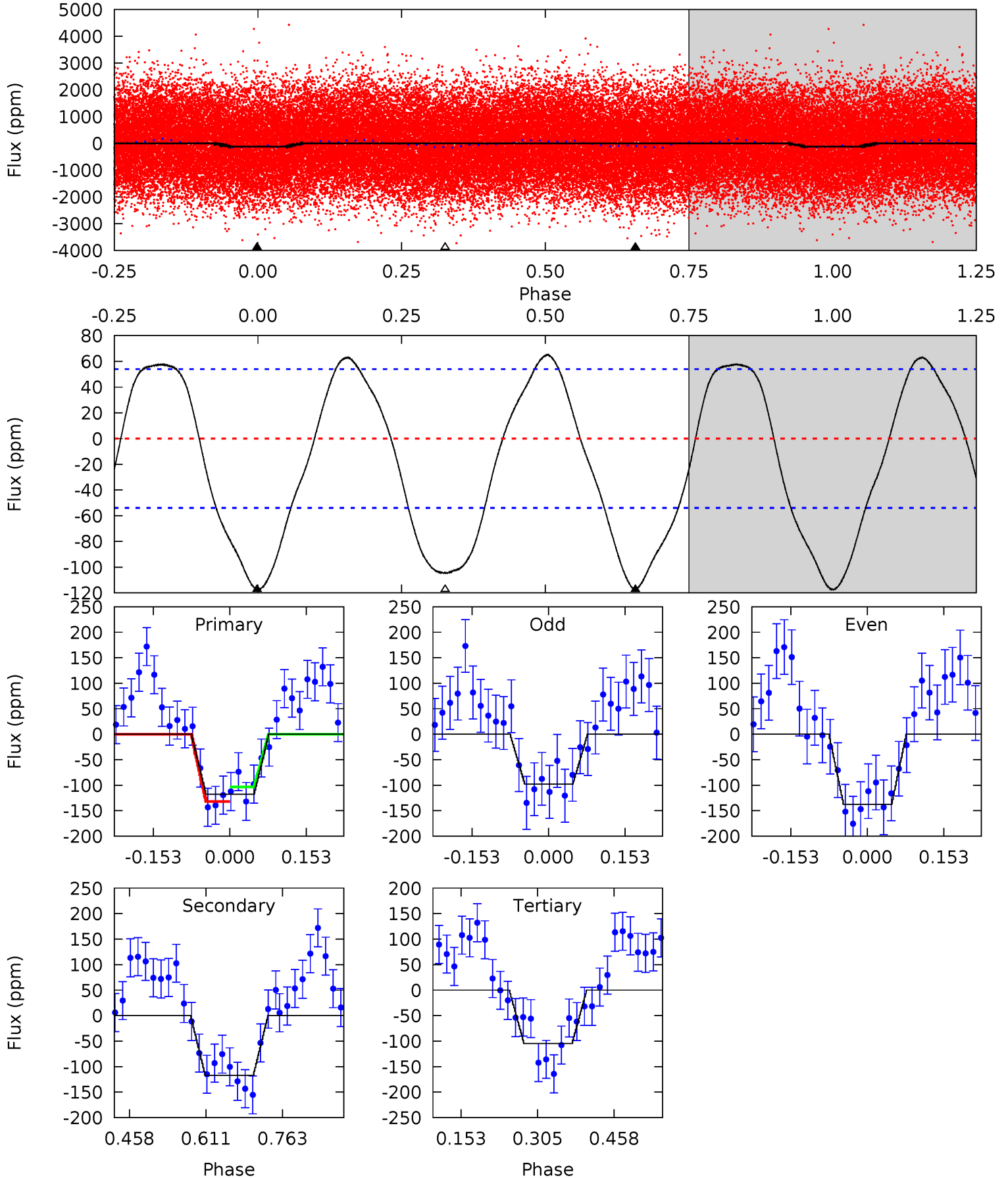
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	21.4	21.2	0	4.50	1.48	10.5	1.65	22.8	0.18	21.4	3.68	0.93	0.26	6.43



Alt Model-Shift Uniqueness Test

009791509-01, P = 0.698575 Days, E = 131.225122 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.76	9.73	8.70	0	4.48	1.43	5.16	1.06	9.76	1.03	9.73	1.66	0.96	0.36	1.19



Stellar Parameters For KIC 009791509

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	7992^{+193}_{-359}	$4.107^{+0.126}_{-0.154}$	$0.070^{+0.250}_{-0.400}$	$1.976^{+0.491}_{-0.357}$	$1.823^{+0.159}_{-0.318}$	$0.333^{+0.216}_{-0.153}$
	+2%/-4%	+3%/-4%	+357%/-571%	+25%/-18%	+9%/-17%	+65%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009791509-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-91 ± 4	$1.64^{+0.82}_{-0.80}$	5019^{+327}_{-310}	9003^{+6856}_{-2101}	$6.605^{+17.346}_{-3.776}$
Alt.	-117 ± 12	$2.36^{+0.91}_{-0.84}$	5024^{+330}_{-283}	7612^{+2748}_{-1292}	$3.884^{+5.799}_{-1.792}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

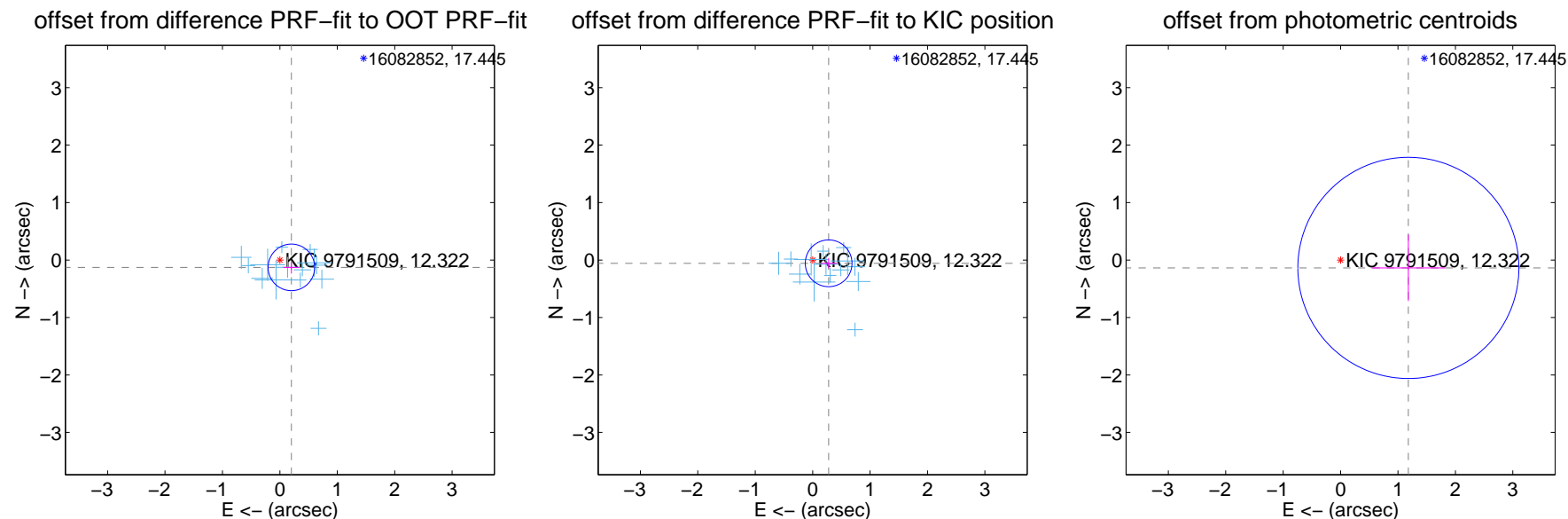
DV Centroid Data

Supplemental centroid analysis for 009791509-01. Kepler magnitude: 12.32. Transit SNR 9.80

There are 14 quarters with good PRF difference image offsets

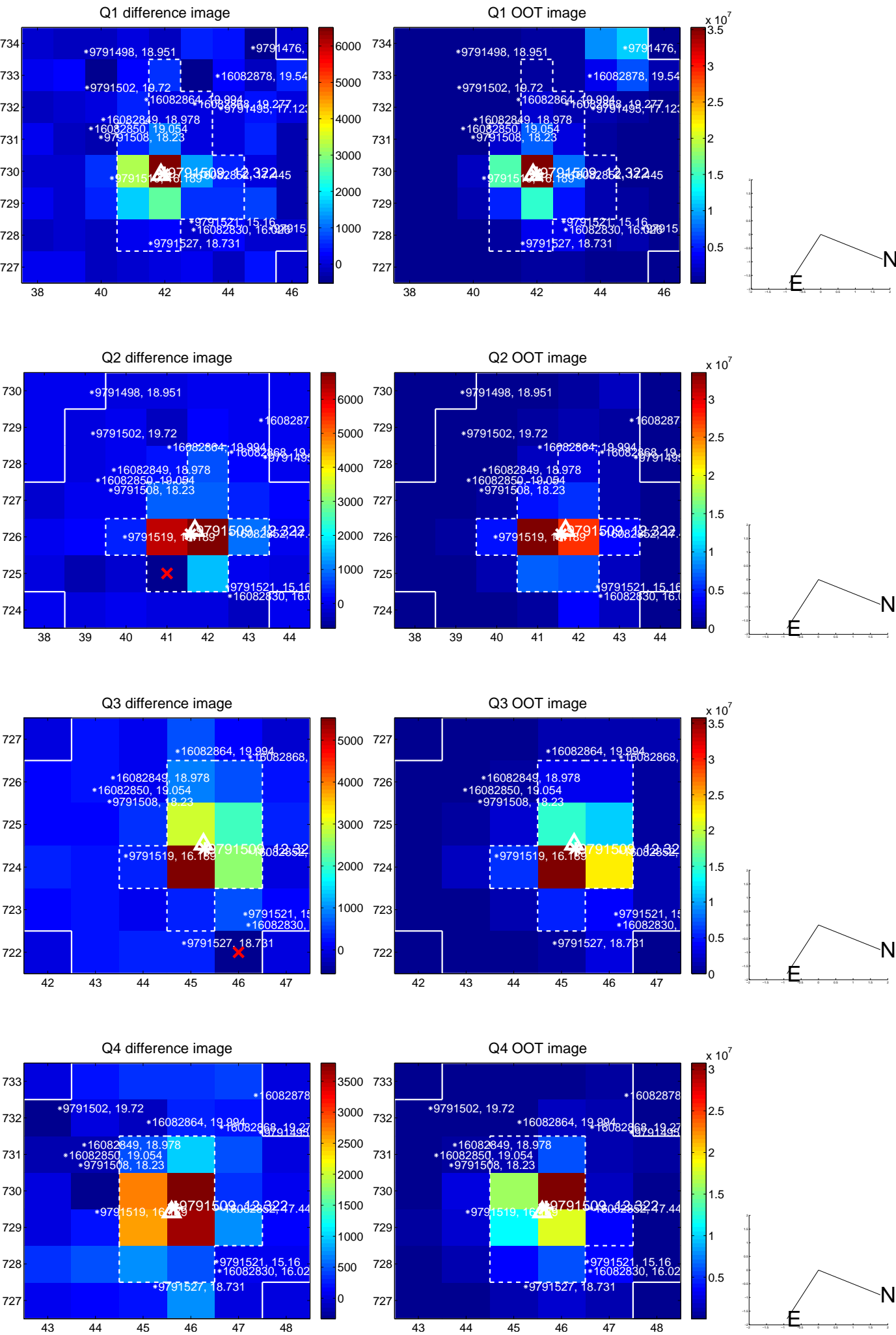
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.238 ± 0.135	1.76	-0.201 ± 0.134	-0.128 ± 0.108
PRF-fit source offset from KIC position	0.284 ± 0.136	2.10	-0.279 ± 0.137	-0.057 ± 0.091
photometric centroid source offset	1.19 ± 0.64	1.85	-1.18 ± 0.64	-0.14 ± 0.58

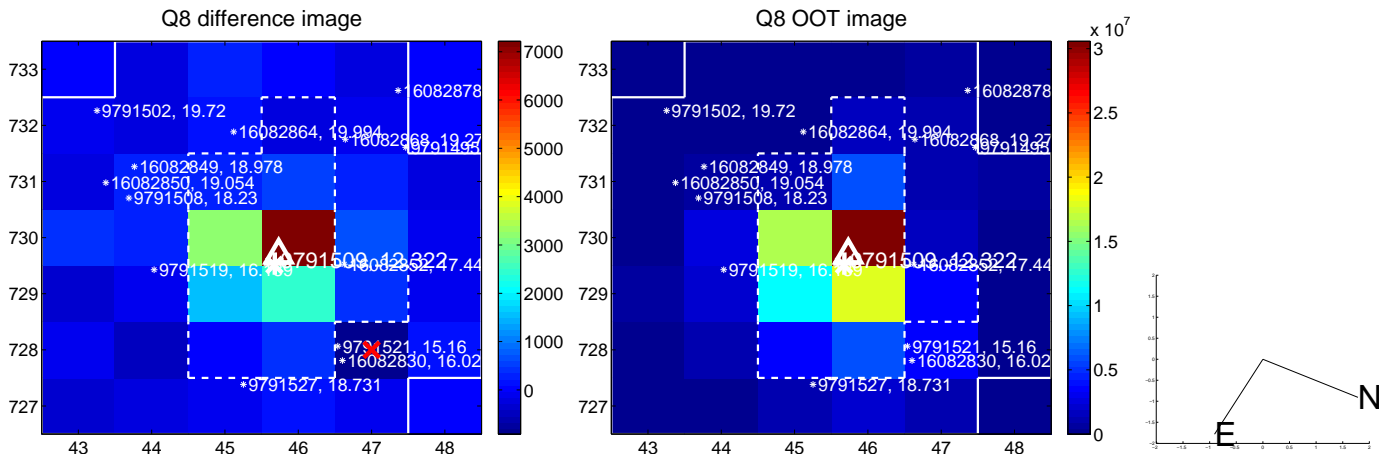
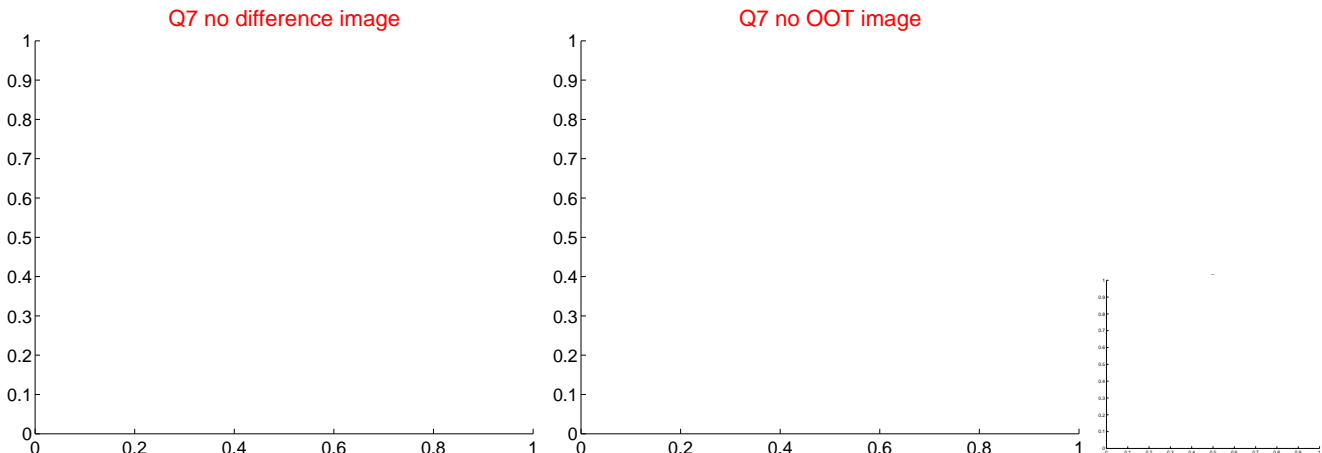
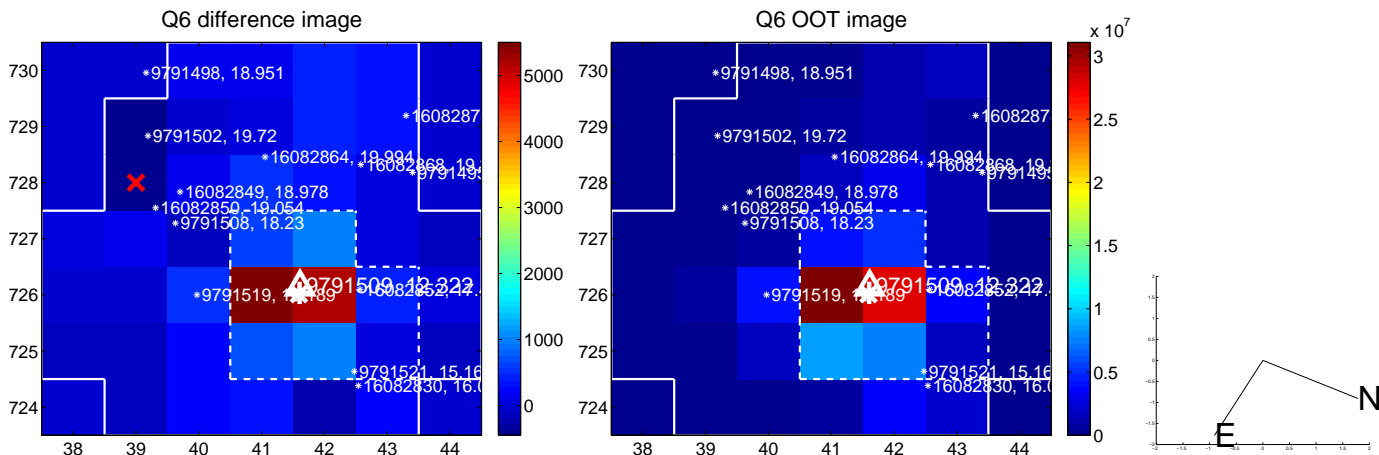
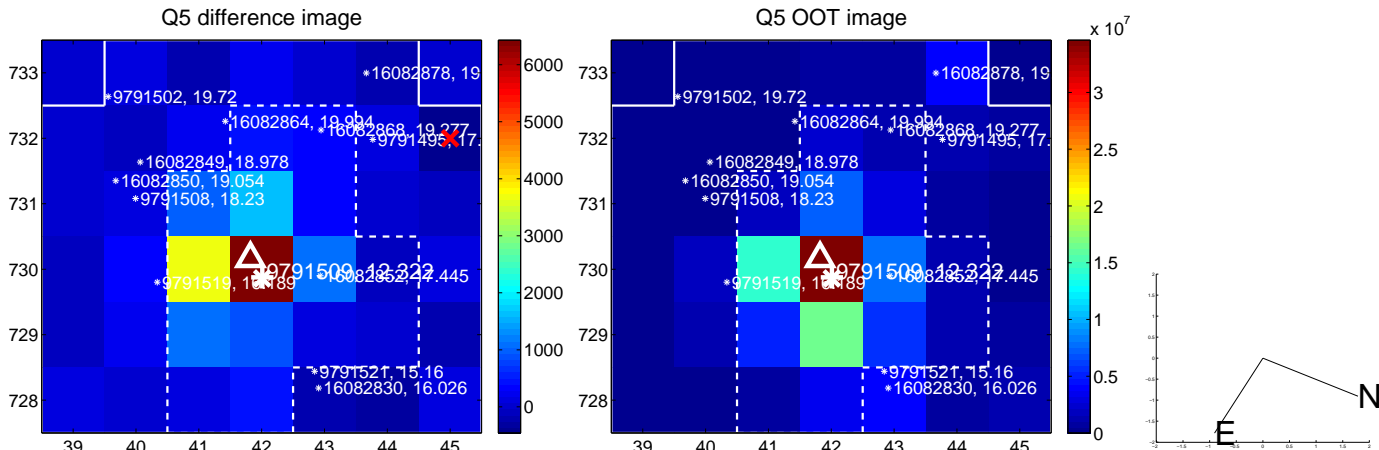


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

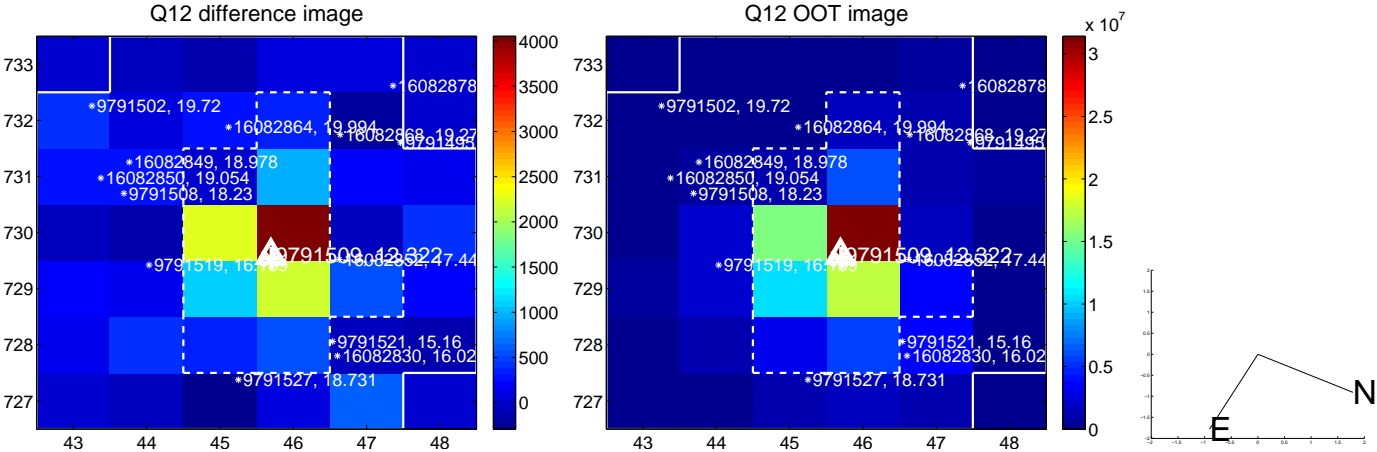
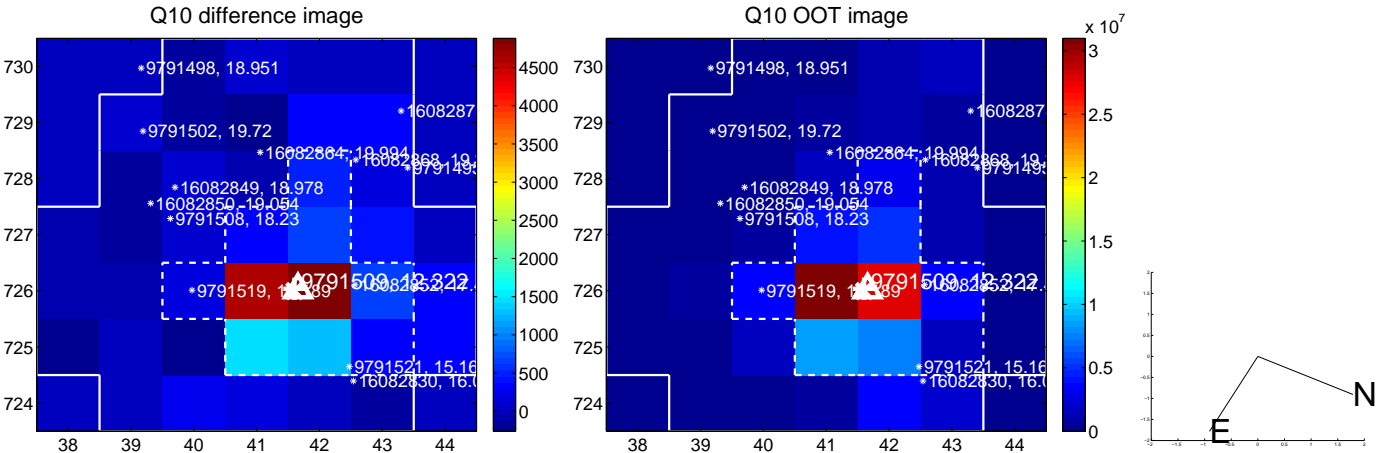
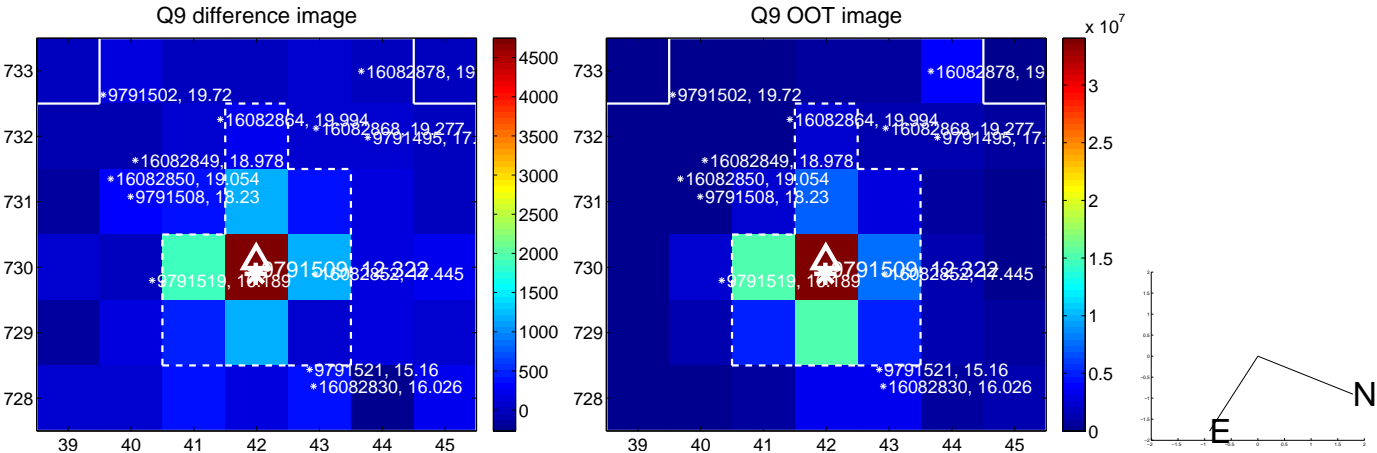
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



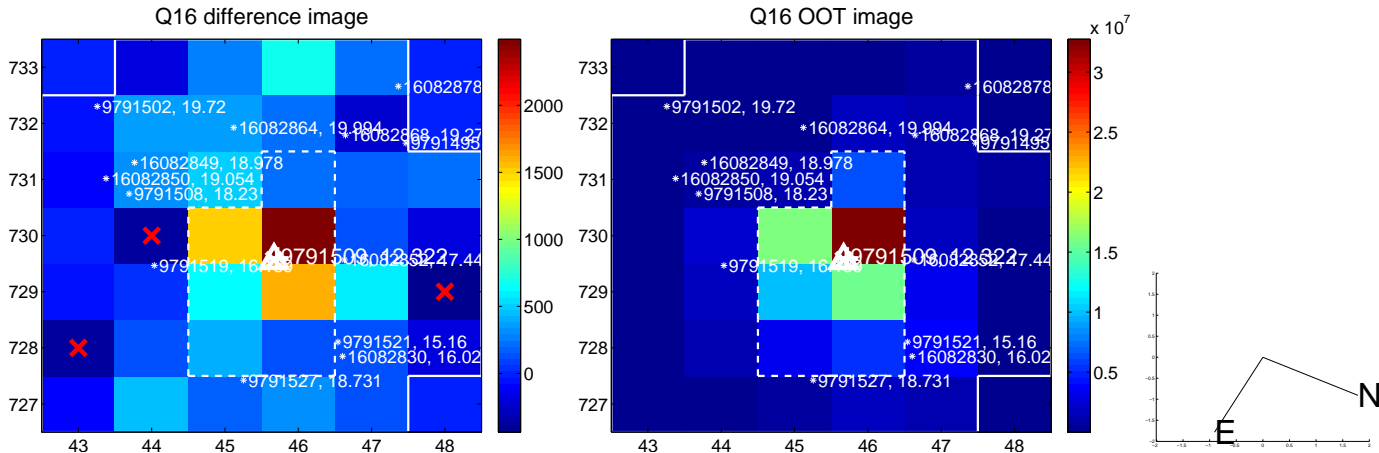
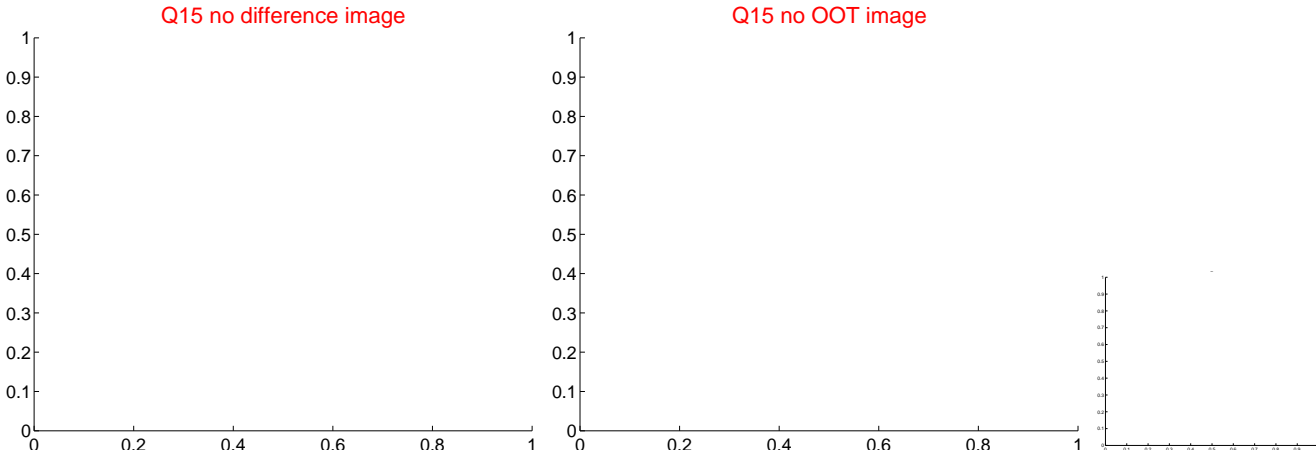
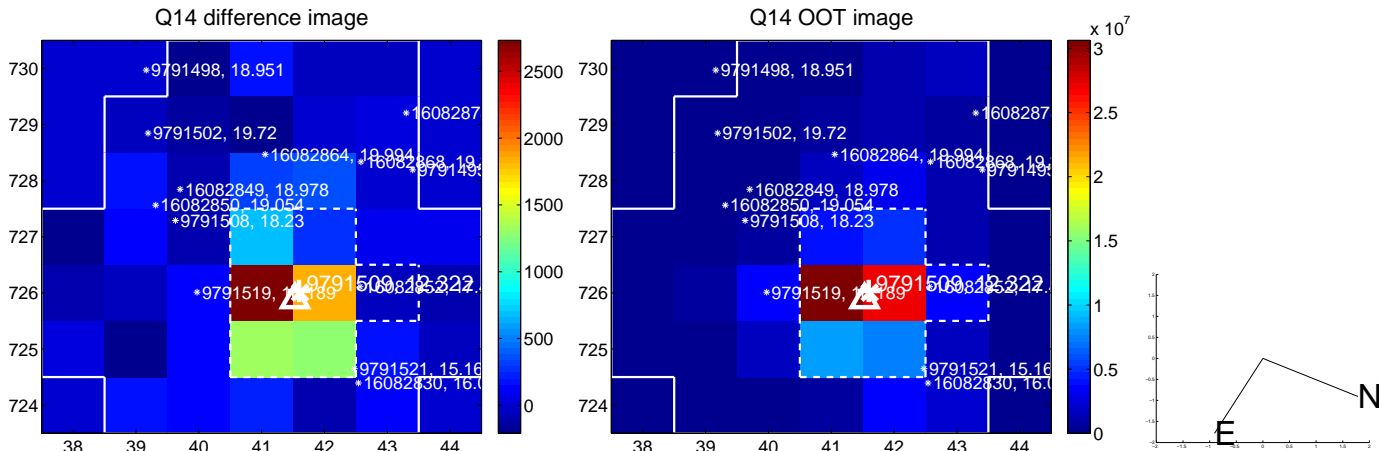
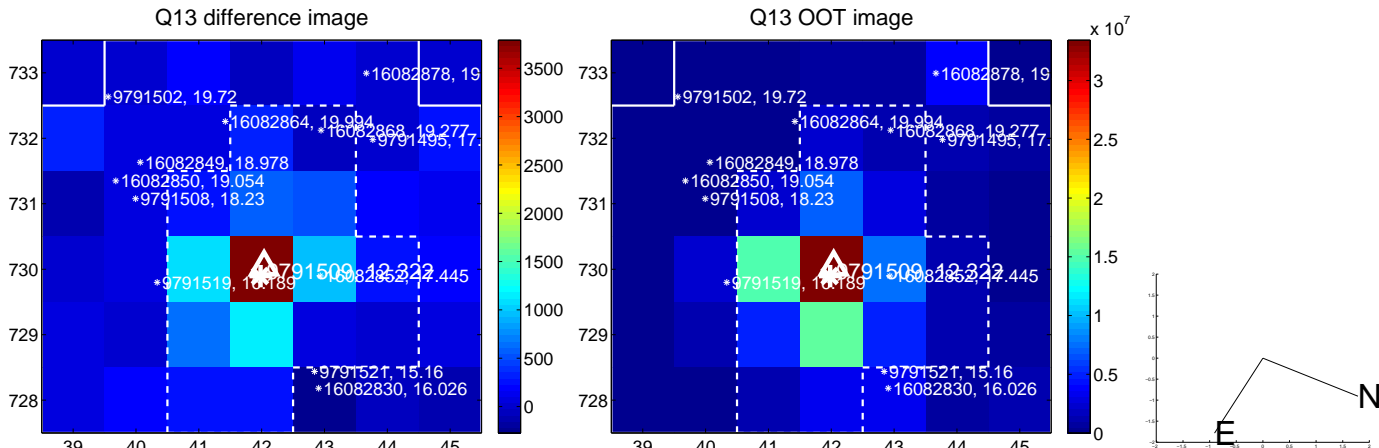
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



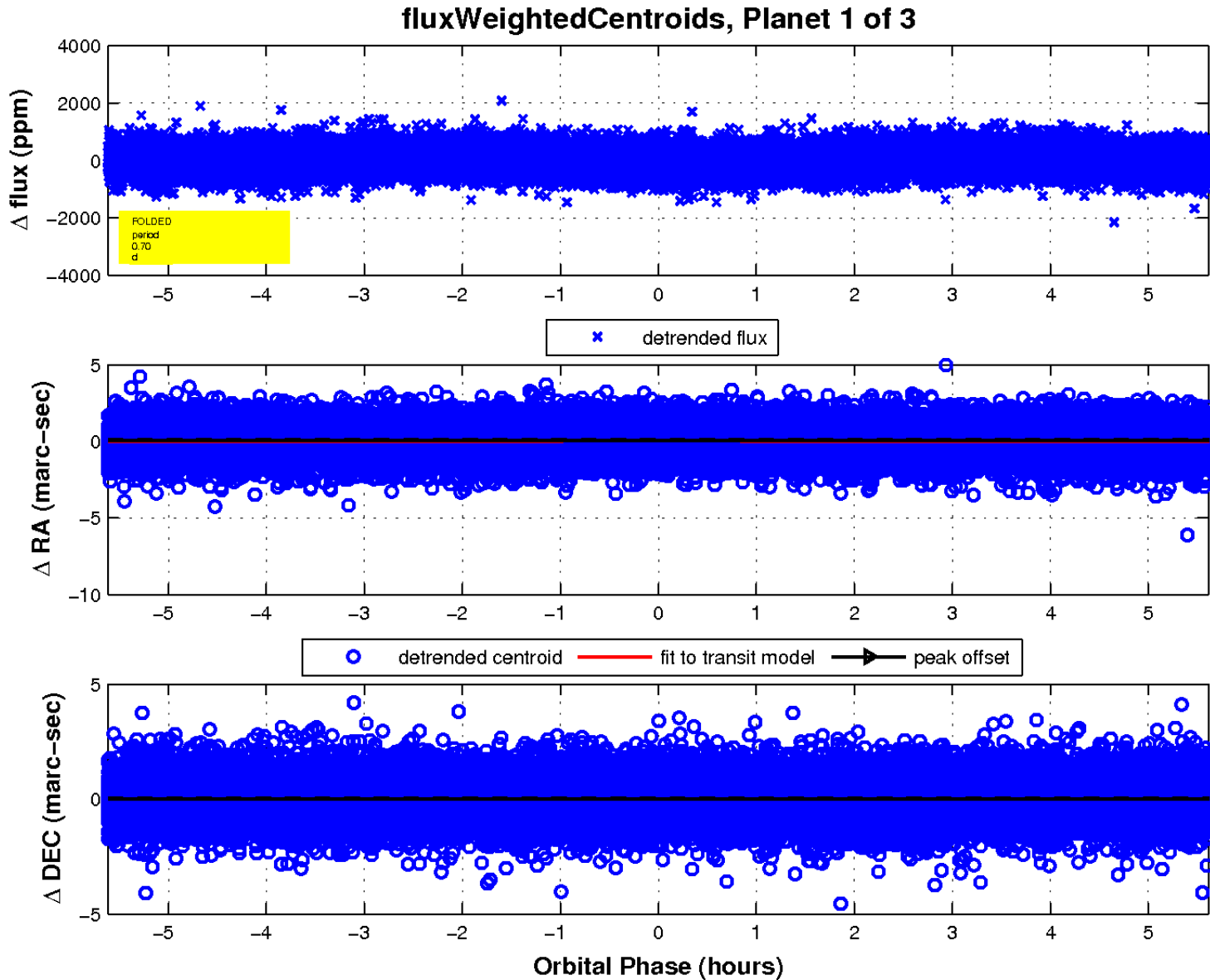
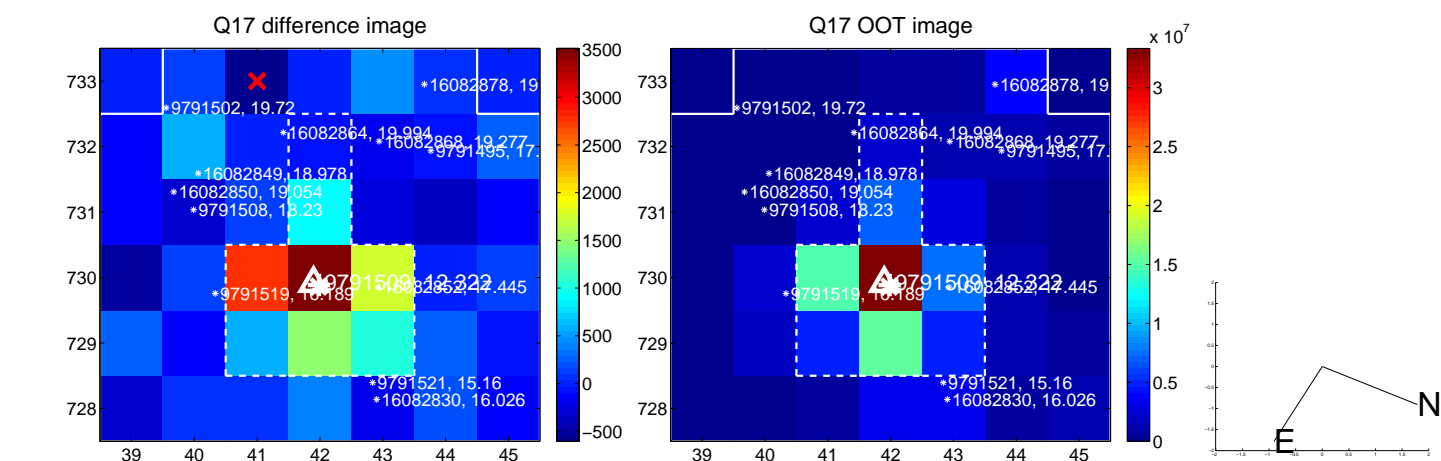
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

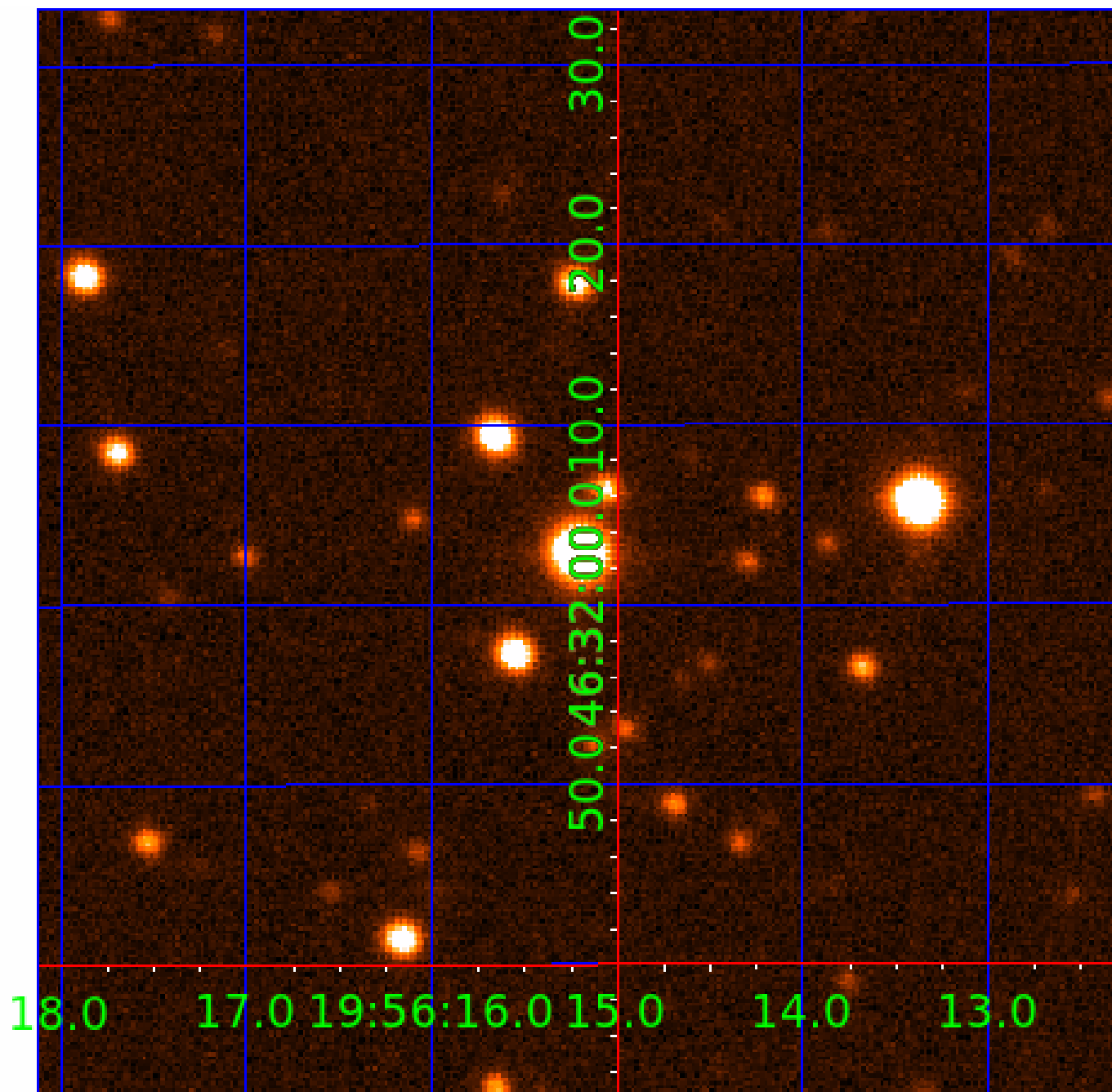


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009791509

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})
009791509-01	OBS	No	0.698553	131.924488	53.6	1.872	10.1	9.8	1.98	7992	1.68	40281.73
009791509-02	OBS	No	0.698510	132.214793	6.7	2.849	10.3	1.5	1.98	7992	0.52	40285.05
009791509-03	OBS	No	0.698562	131.698062	78.6	1.951	11.4	15.1	1.98	7992	1.82	40281.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009791509-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009791509-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
009791509-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

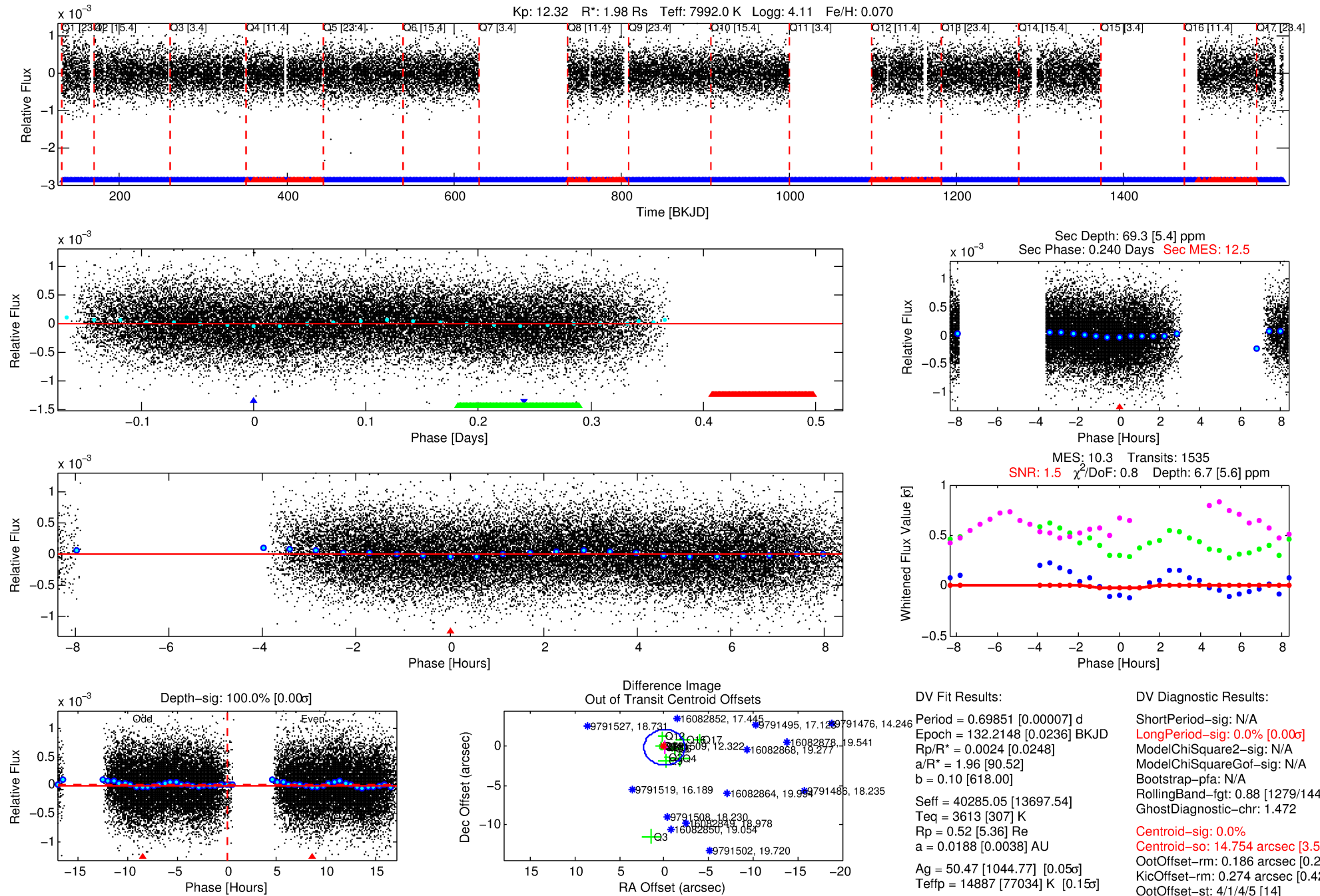
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009791509-02

No Significant Match Found

DV One-Page Summary

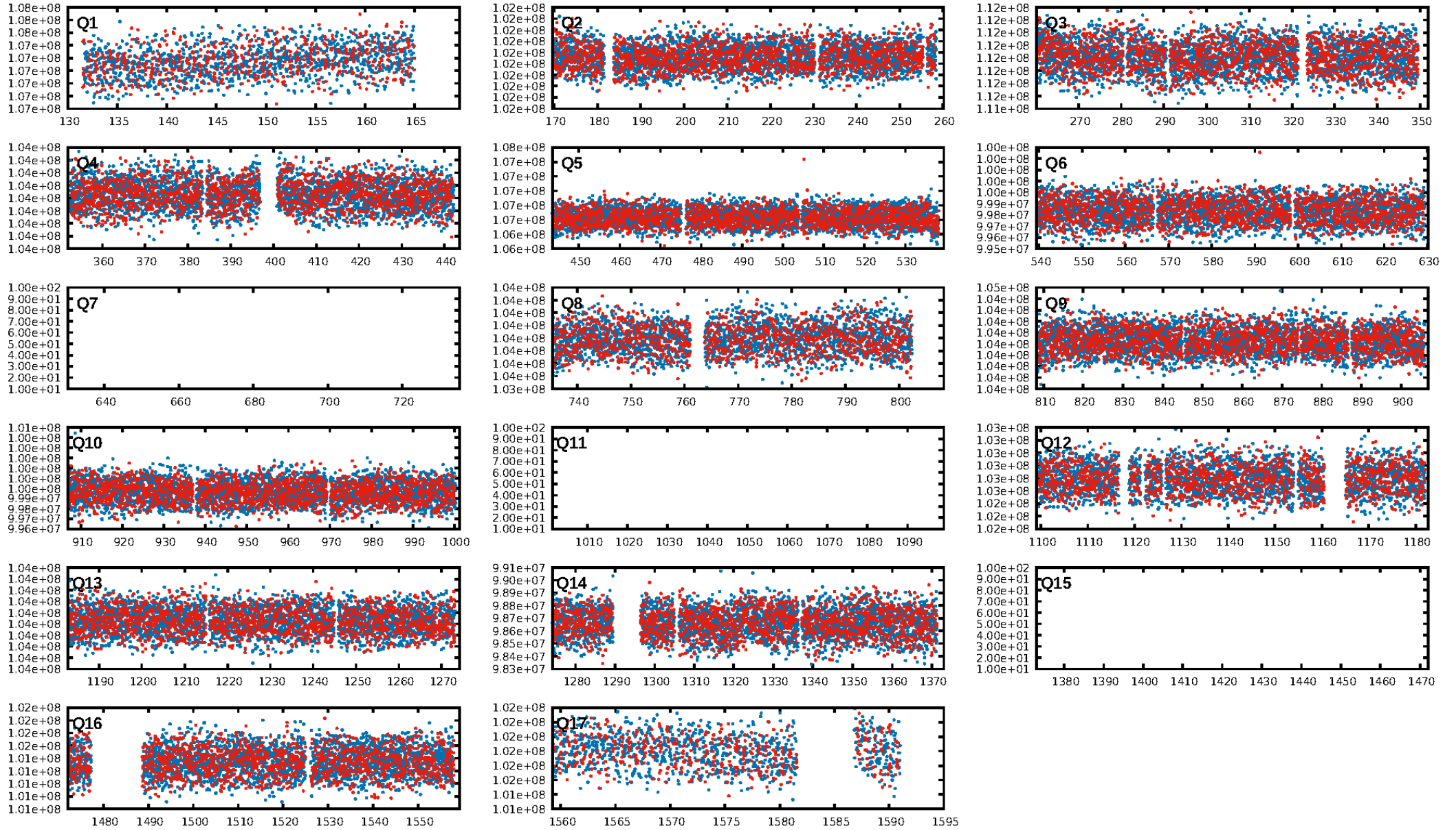
KIC: 9791509 Candidate: 2 of 3 Period: 0.699 d



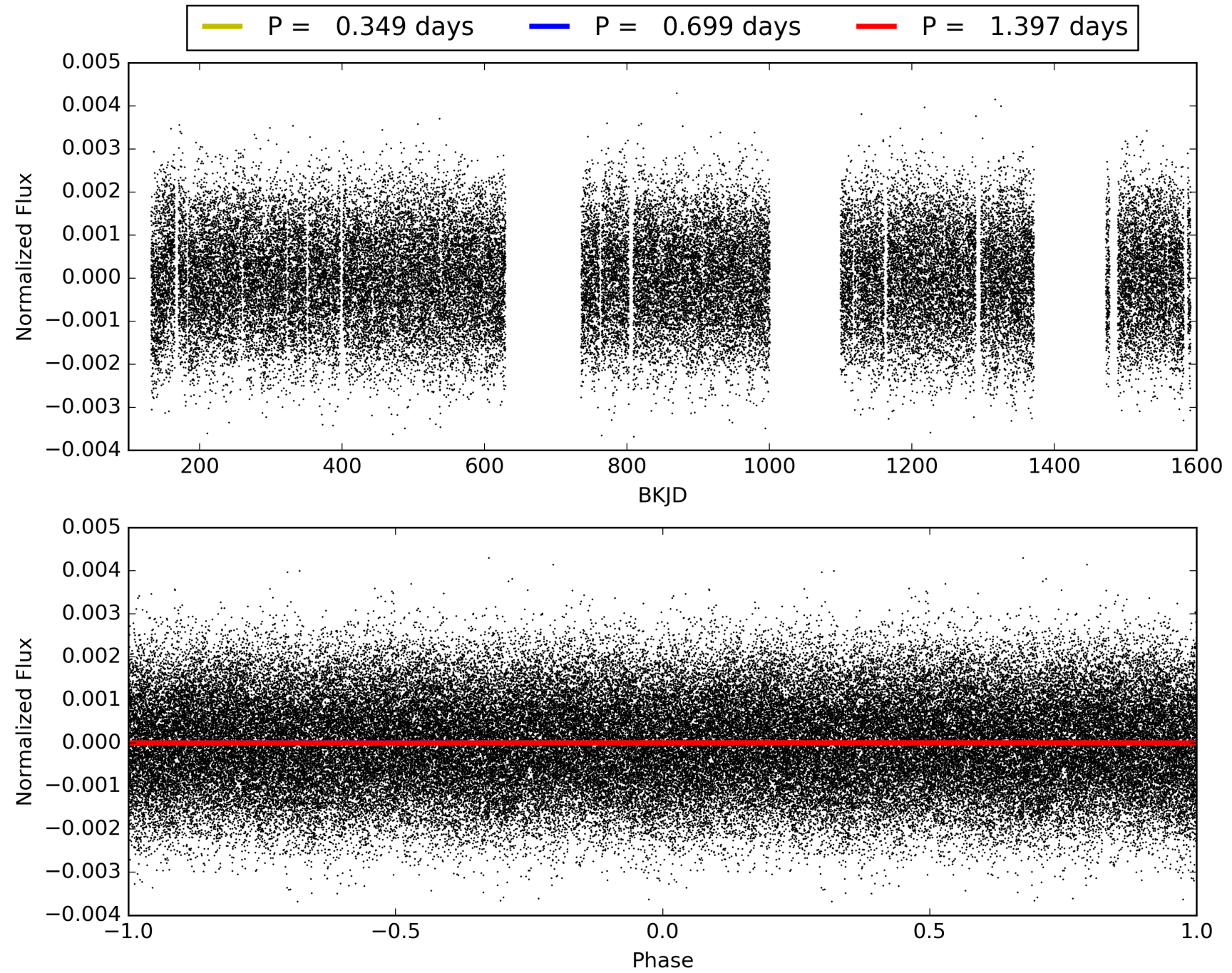
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:59:38 Z

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

TCE 009791509-02, PDC Light Curves

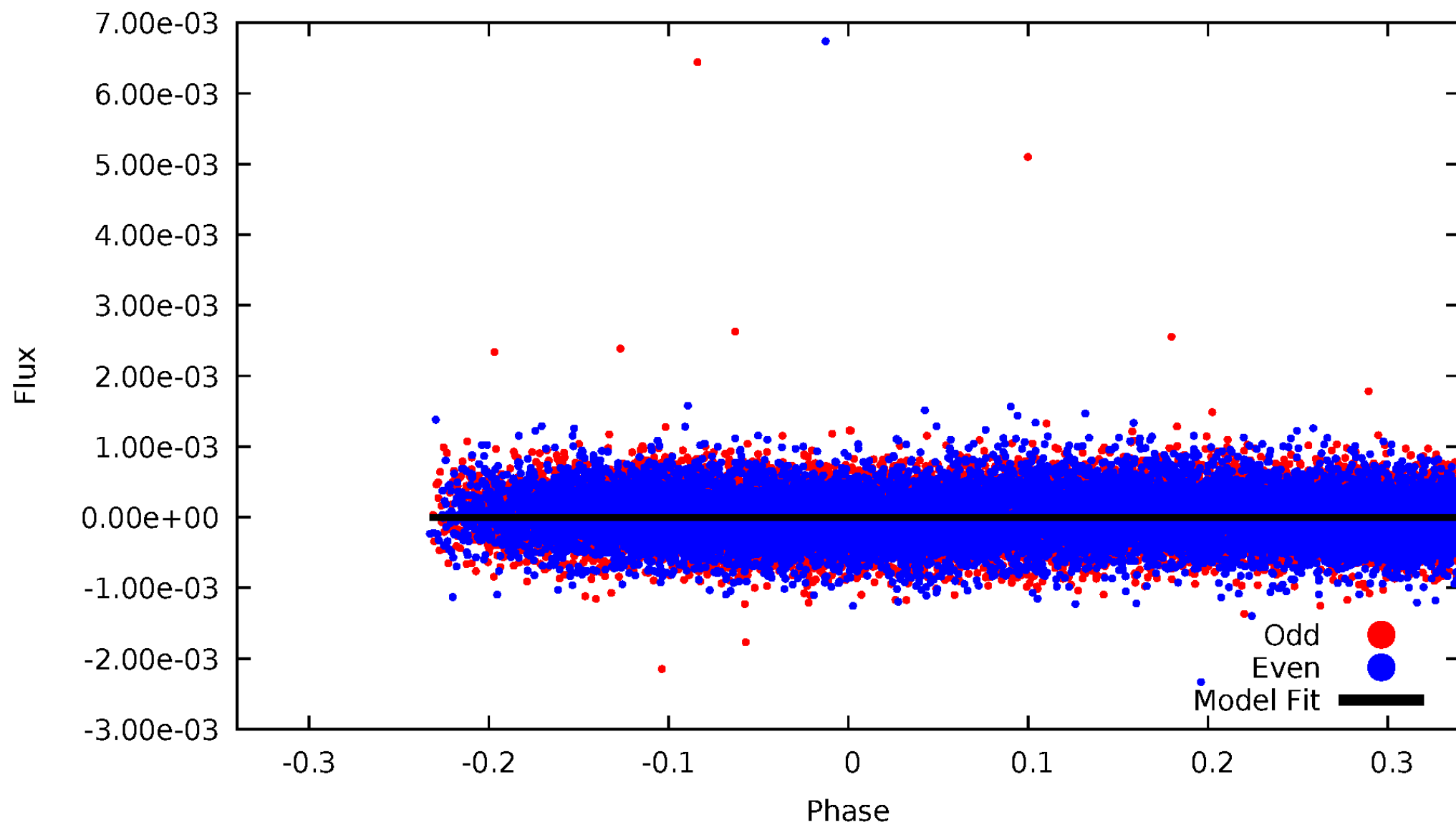


TCE 009791509-02



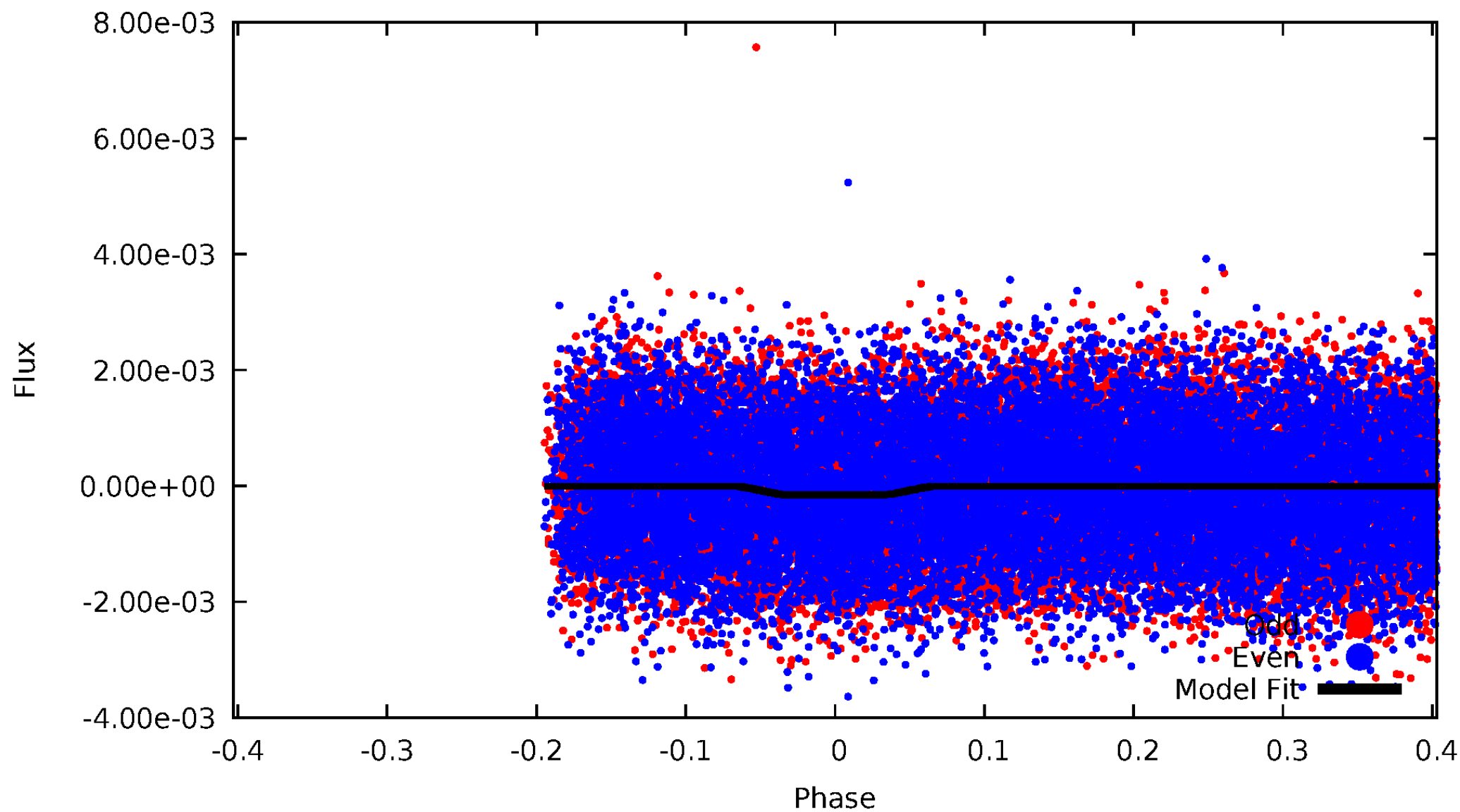
DV Odd/Even

TCE 009791509-02



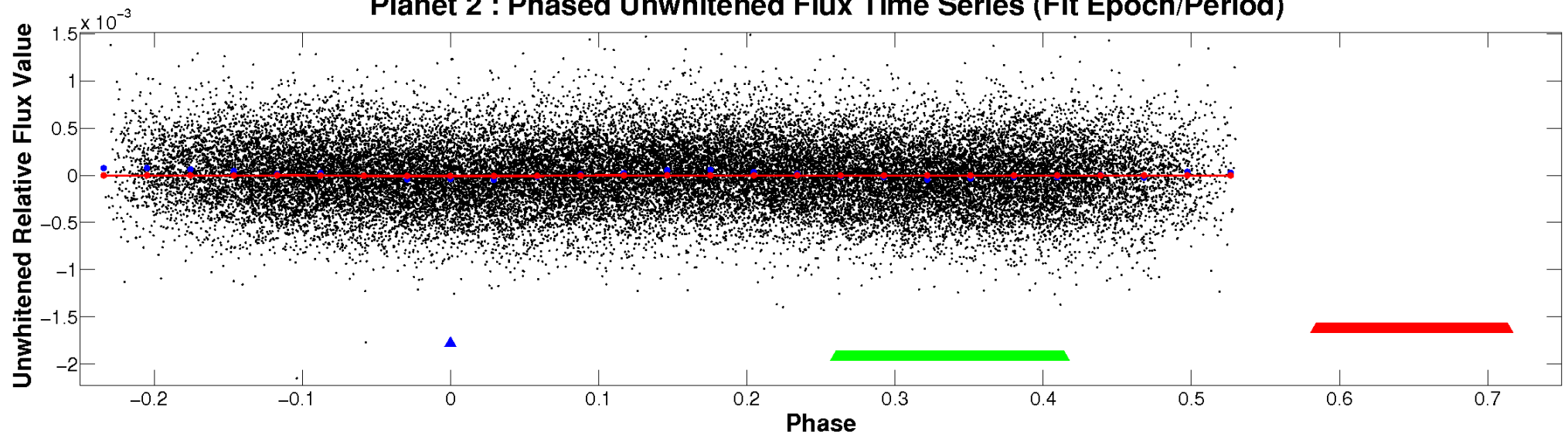
ALT Odd/Even

TCE 009791509-02

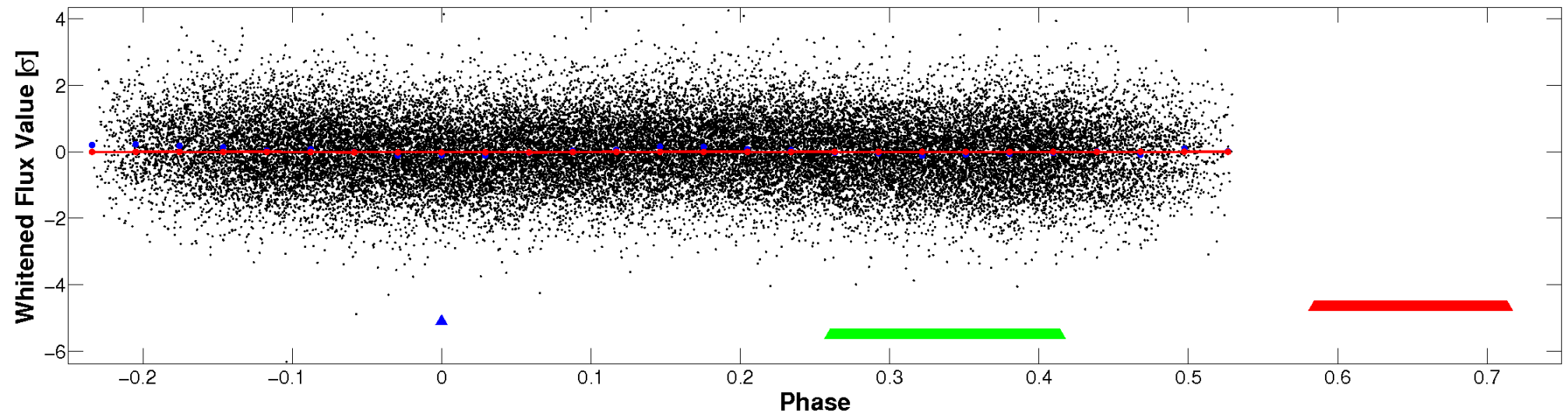


Non-Whitened Vs. Whitened Light Curve

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

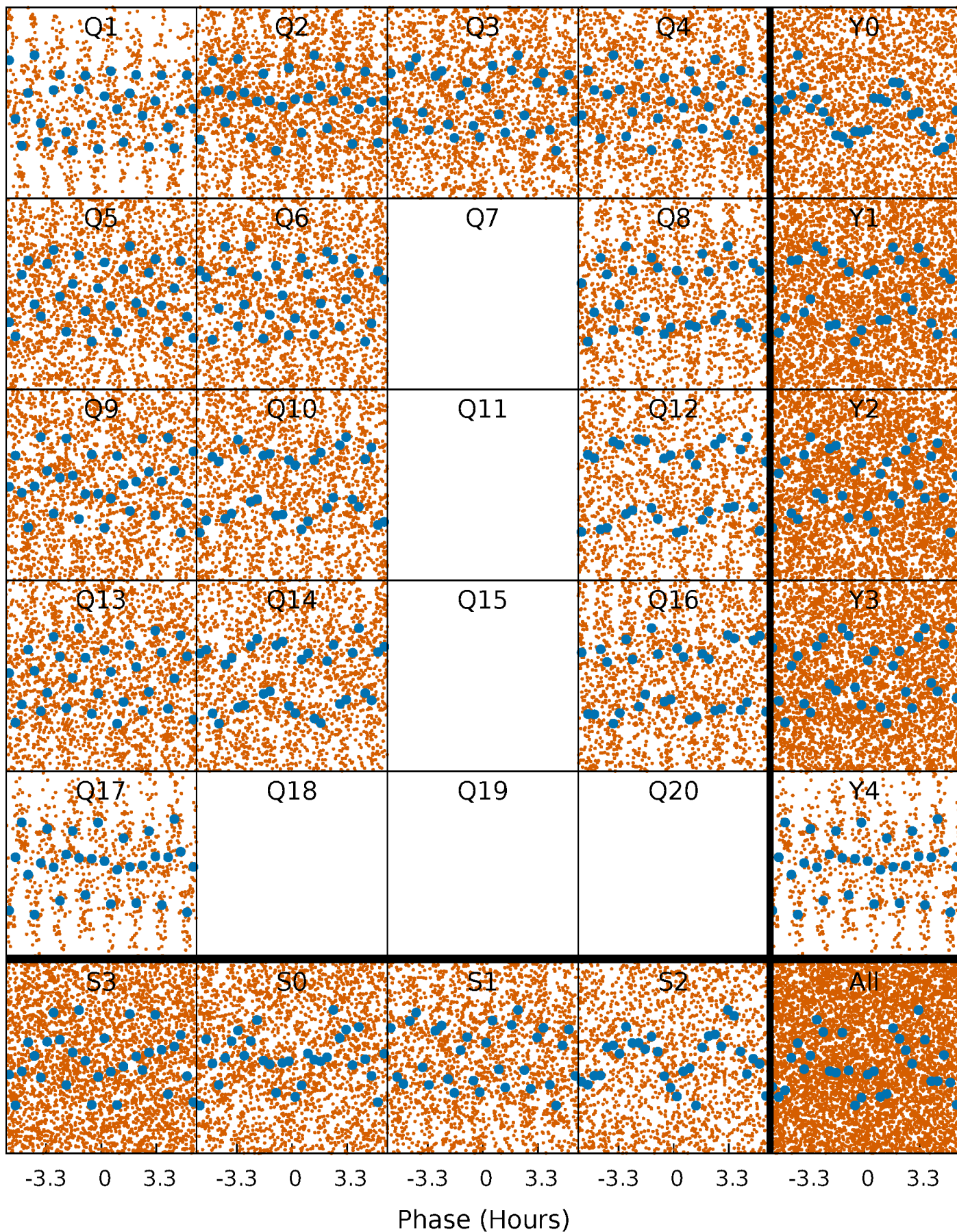


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



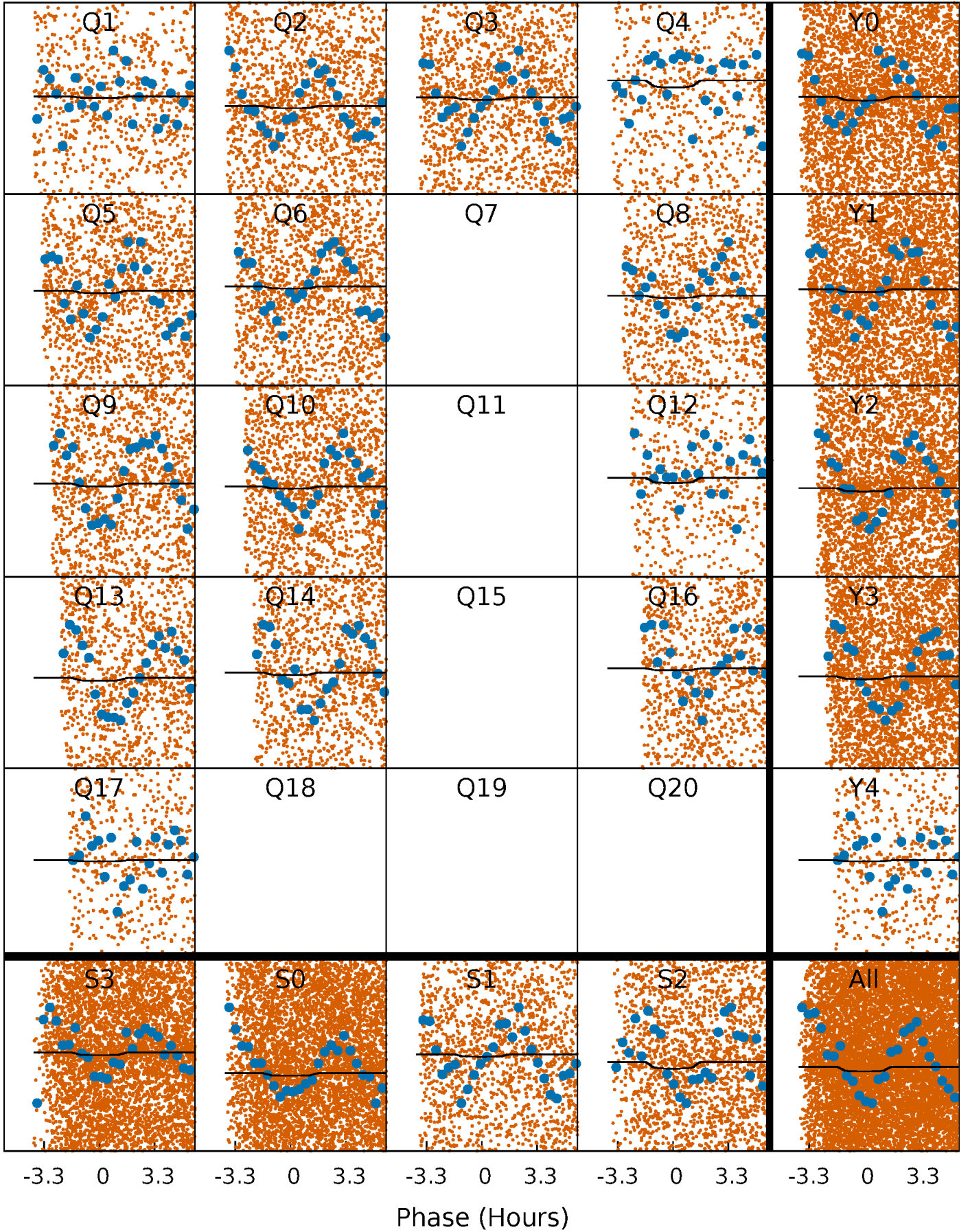
PDC Quarter-Phased Transit Curves

TCE 009791509-02 P= 0.698510 Days $T_0=132.214793$ (BKJD)



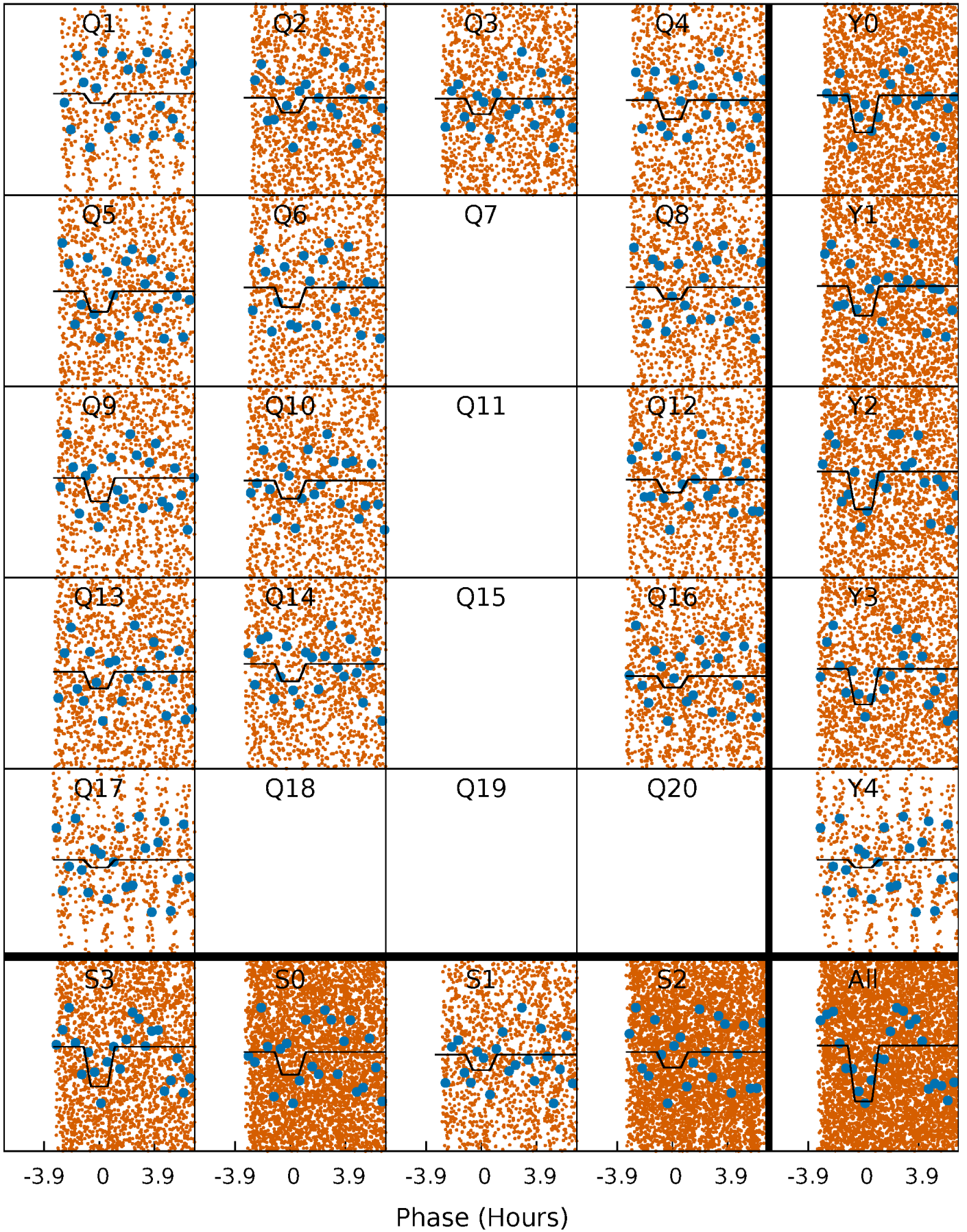
DV Quarter-Phased Transit Curves

TCE 009791509-02 P= 0.698510 Days $T_0=132.214793$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

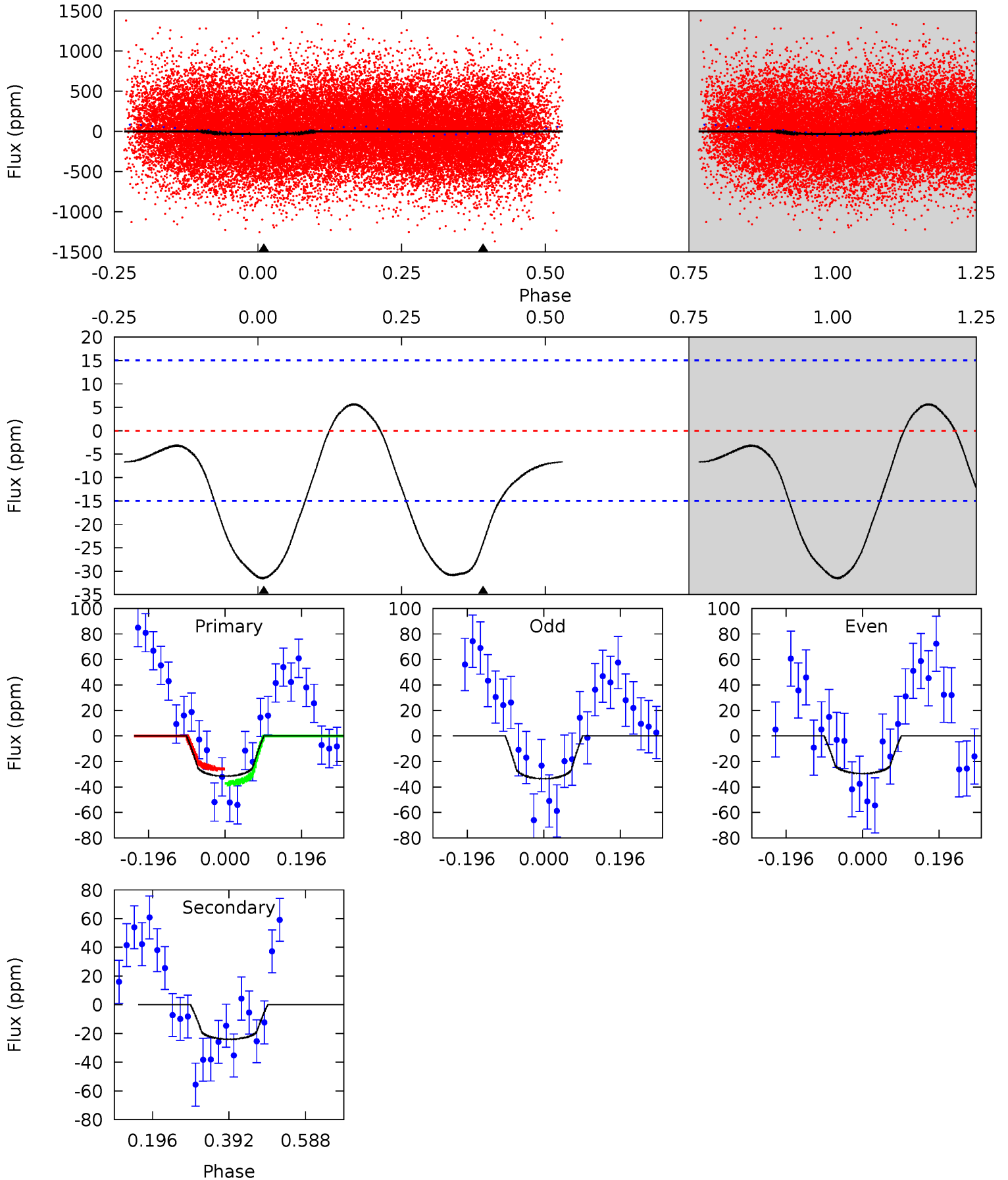
TCE 009791509-02 $P = 0.698565$ Days $T_0 = 132.163766$ (BKJD)



DV Model-Shift Uniqueness Test

009791509-02, P = 0.698510 Days, E = 130.817773 Days

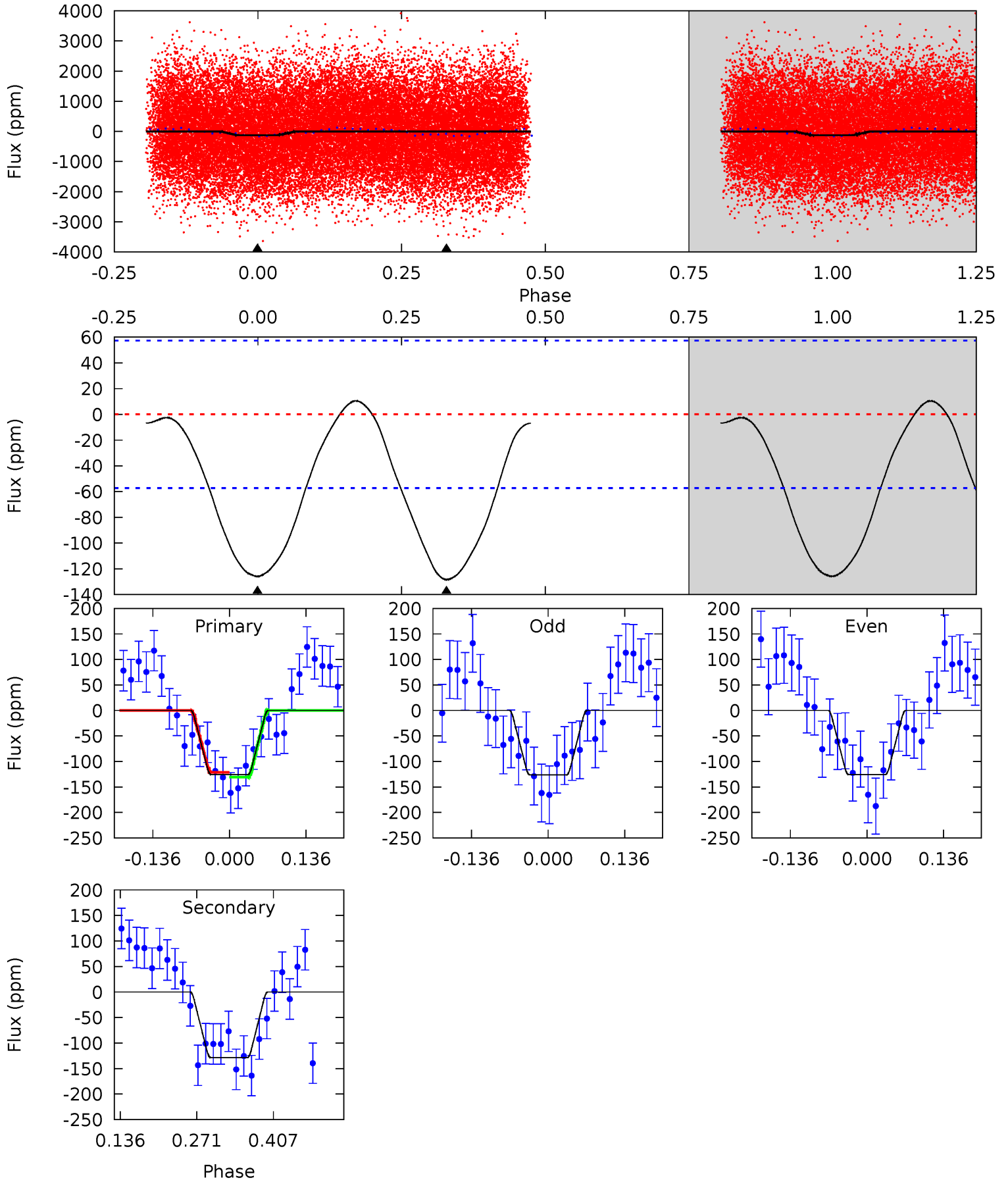
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	7.07	0	0	4.42	1.29	1.13	9.29	9.29	7.07	7.07	0.60	0.83	0.15	1.68



Alt Model-Shift Uniqueness Test

009791509-02, P = 0.698565 Days, E = 131.465201 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.89	10.1	0	0	4.50	1.49	0.49	9.89	9.89	10.1	10.1	0.03	1.10	0.08	0.38



Stellar Parameters For KIC 009791509

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7992^{+193}_{-359}	$4.107^{+0.126}_{-0.154}$	$0.070^{+0.250}_{-0.400}$	$1.976^{+0.491}_{-0.357}$	$1.823^{+0.159}_{-0.318}$	$0.333^{+0.216}_{-0.153}$
	+2%/-4%	+3%/-4%	+357%/-571%	+25%/-18%	+9%/-17%	+65%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009791509-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-24 ± 3	$3.64^{+4.30}_{-2.59}$	5035^{+315}_{-311}	3172^{+4422}_{-7238}	$0.343^{+3.628}_{-0.271}$
Alt.	-128 ± 13	$4.86^{+4.85}_{-3.25}$	5022^{+362}_{-303}	5094^{+5373}_{-8205}	$1.018^{+8.855}_{-0.767}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

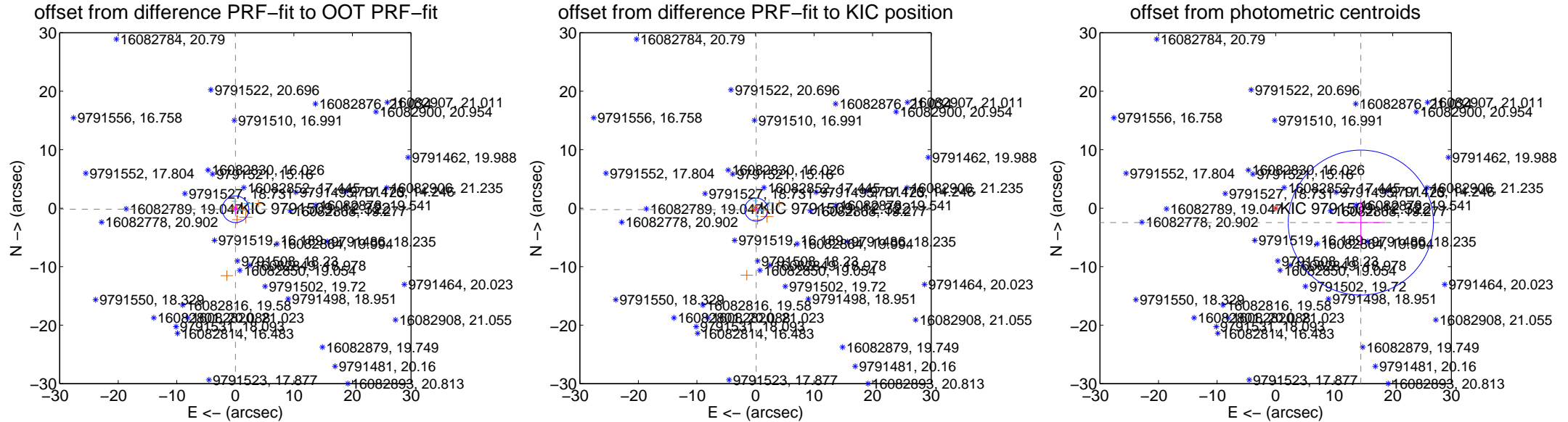
DV Centroid Data

Supplemental centroid analysis for 009791509-02. Kepler magnitude: 12.32. Transit SNR 1.55

There are 7 quarters with good PRF difference image offsets

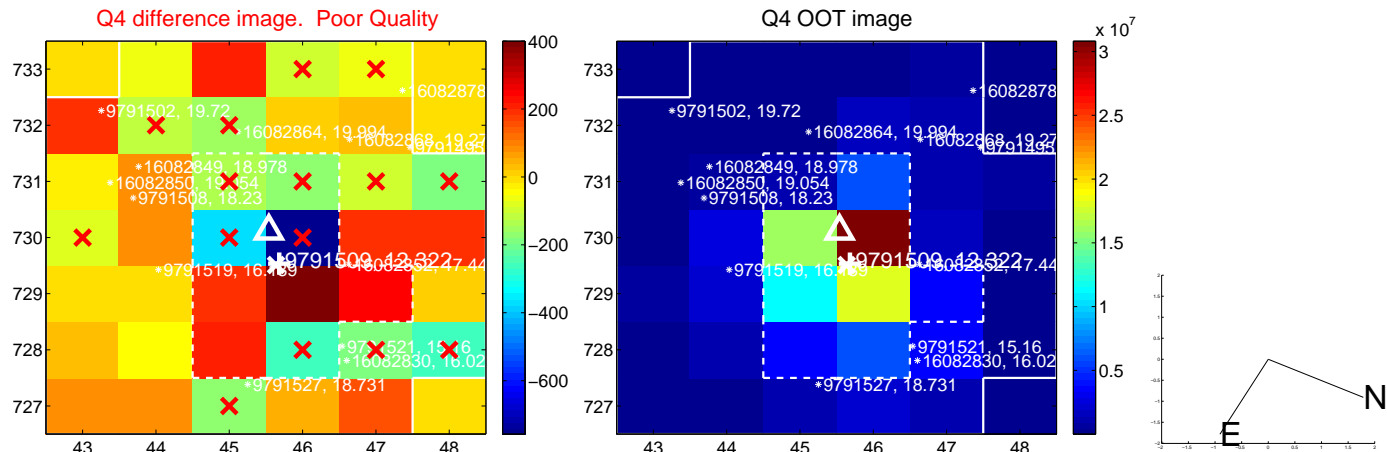
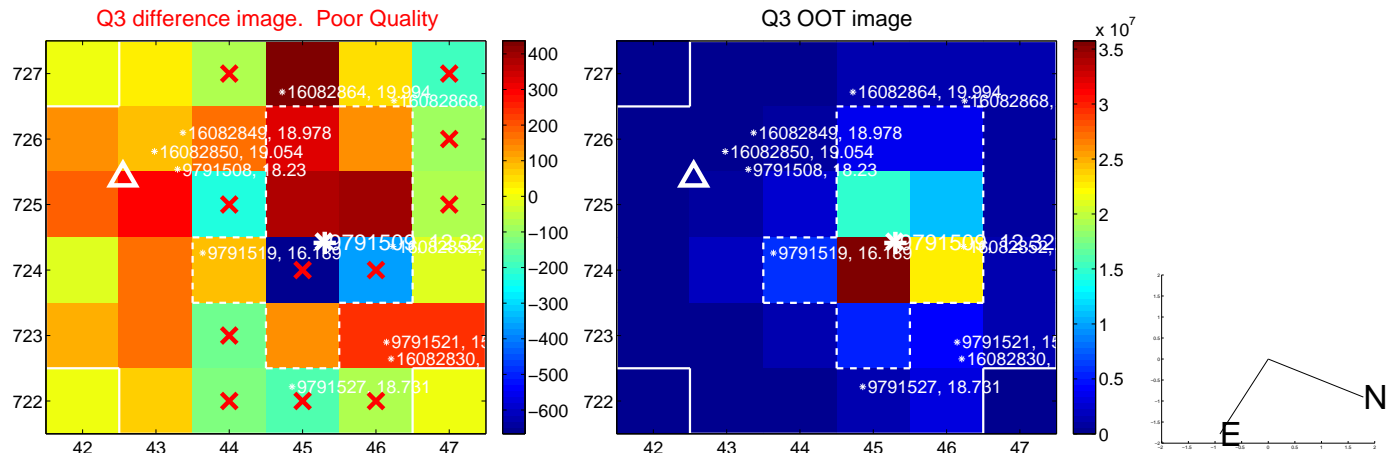
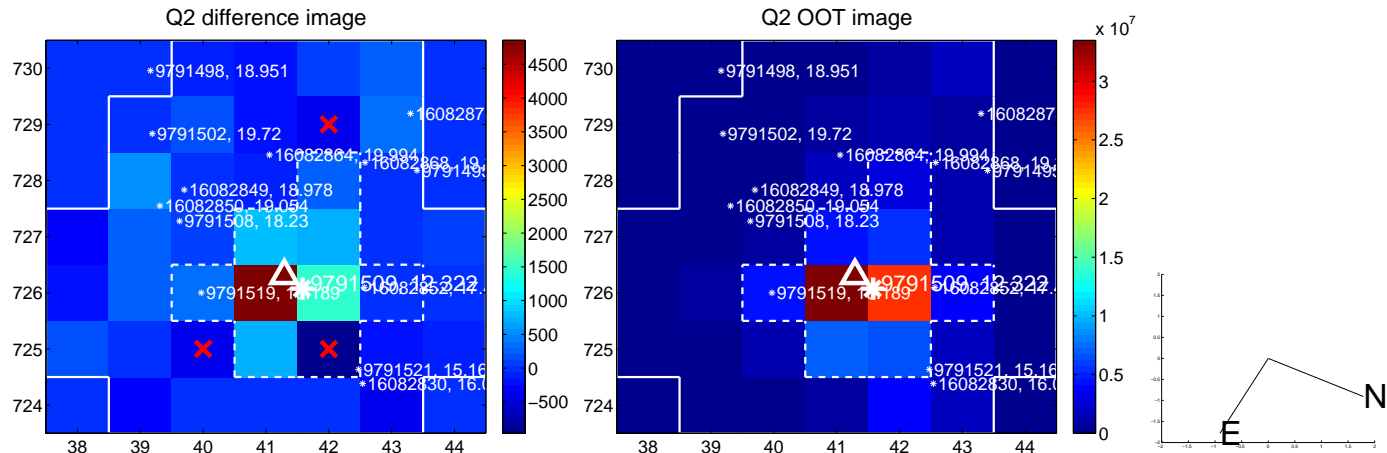
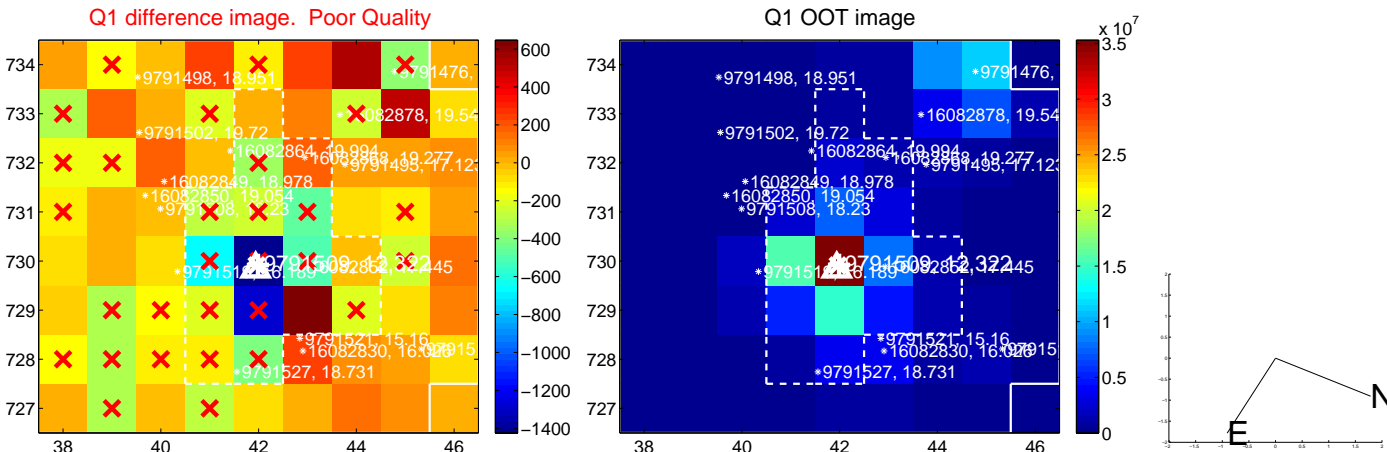
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.186 ± 0.759	0.25	-0.028 ± 0.341	-0.184 ± 0.792
PRF-fit source offset from KIC position	0.274 ± 0.659	0.42	-0.126 ± 0.379	-0.243 ± 0.816
photometric centroid source offset	14.75 ± 4.13	3.57	-14.55 ± 4.14	-2.47 ± 3.72

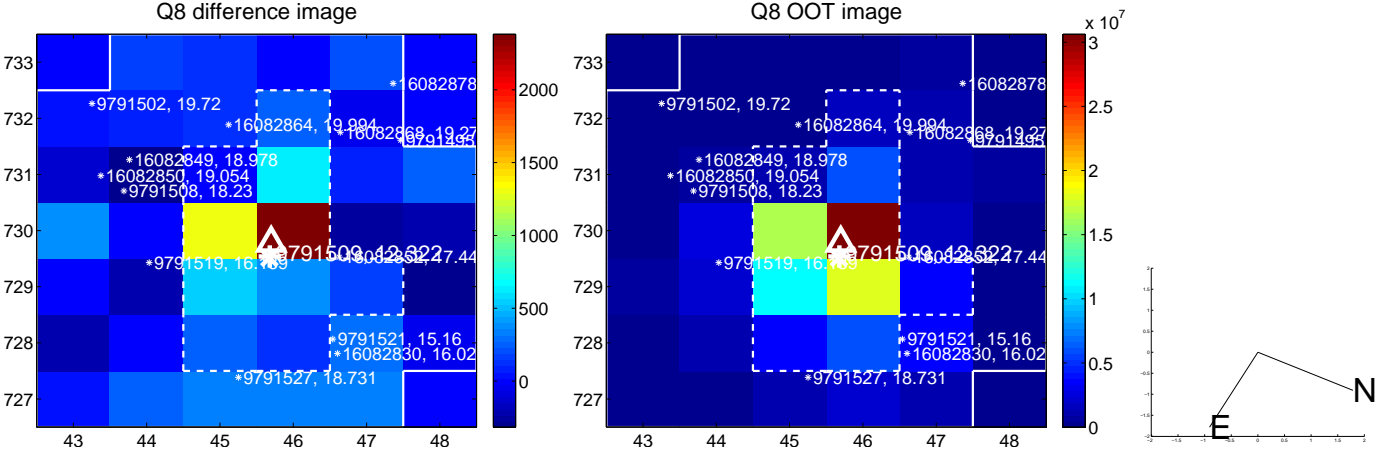
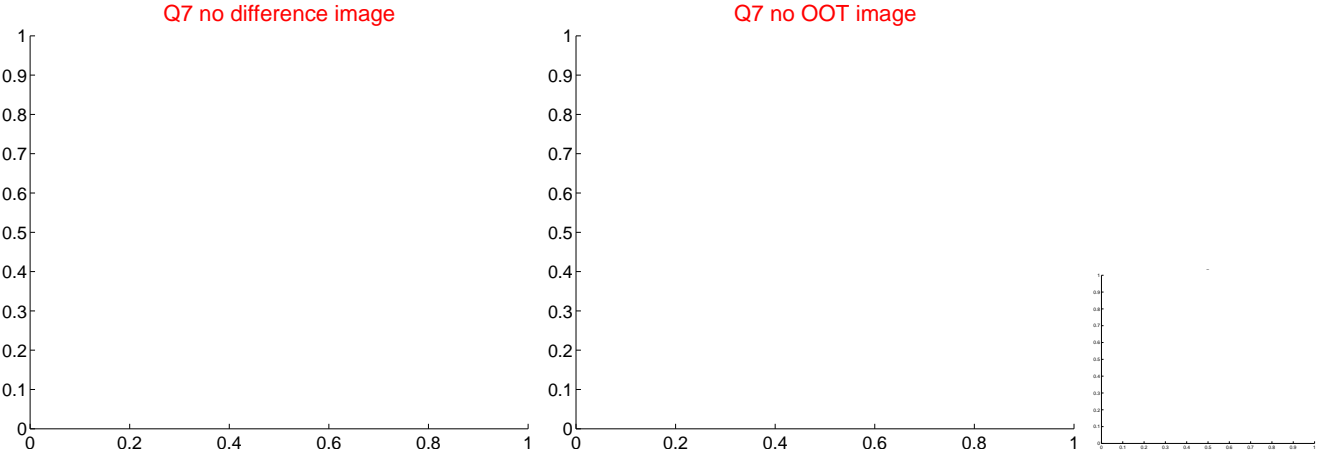
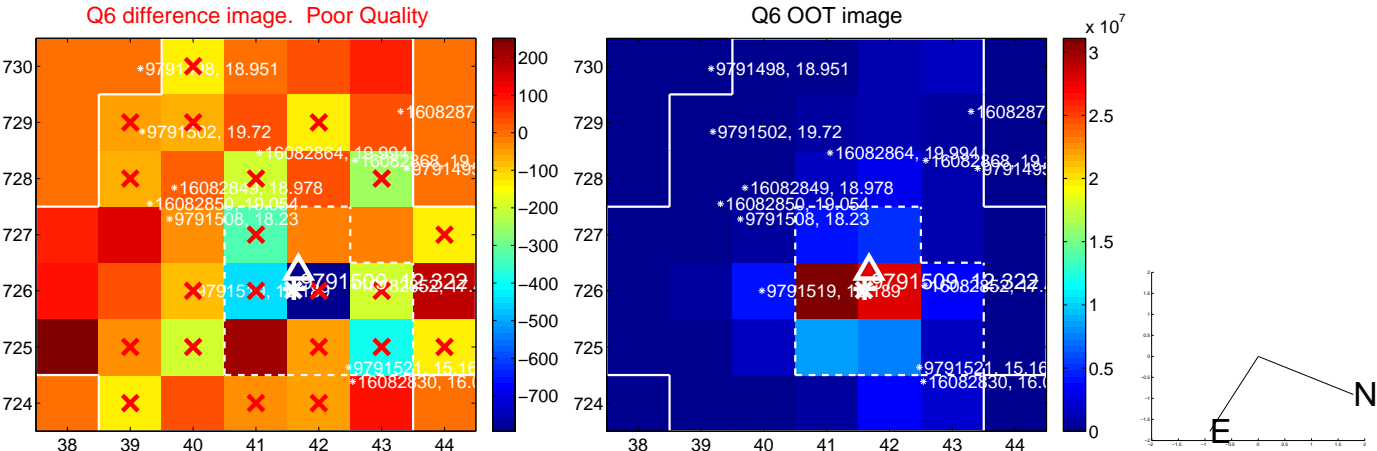
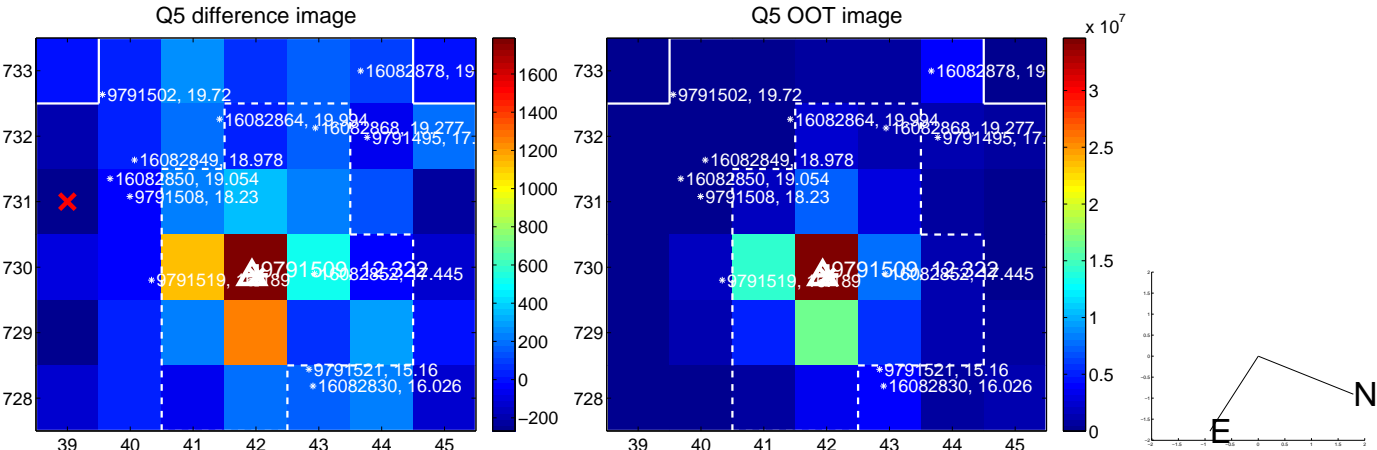


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

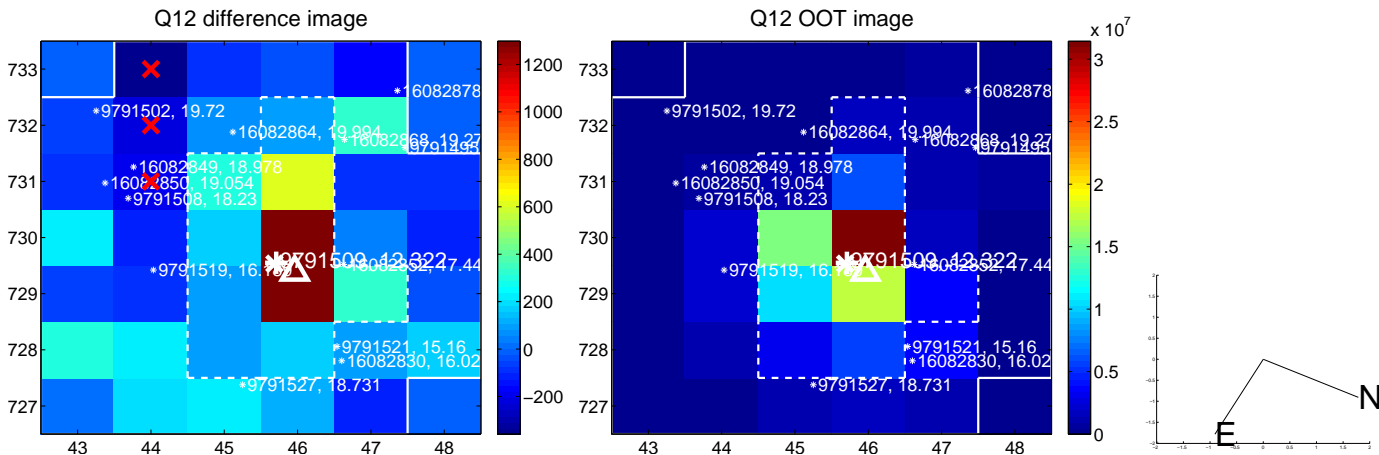
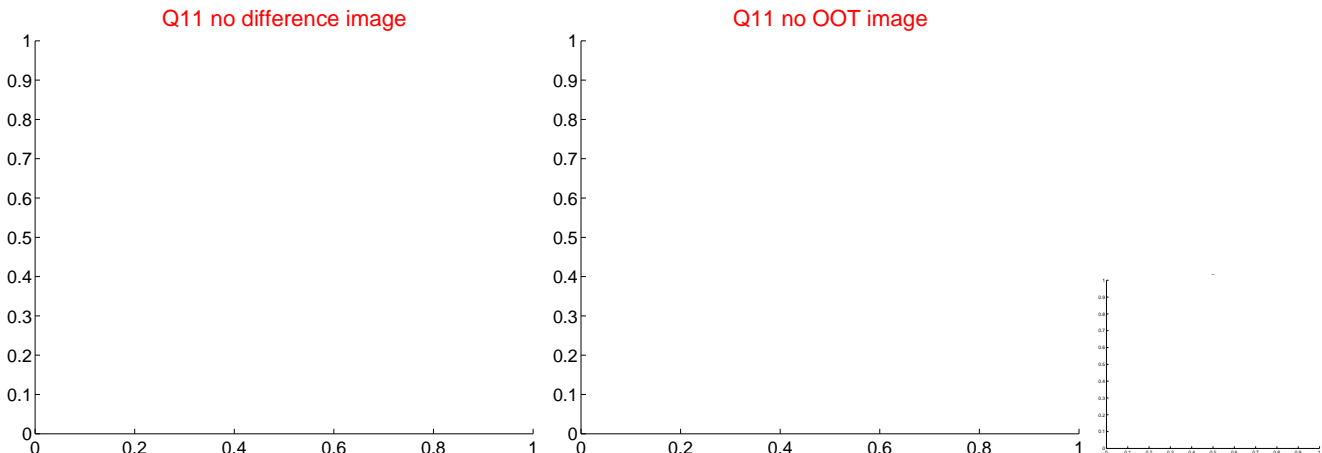
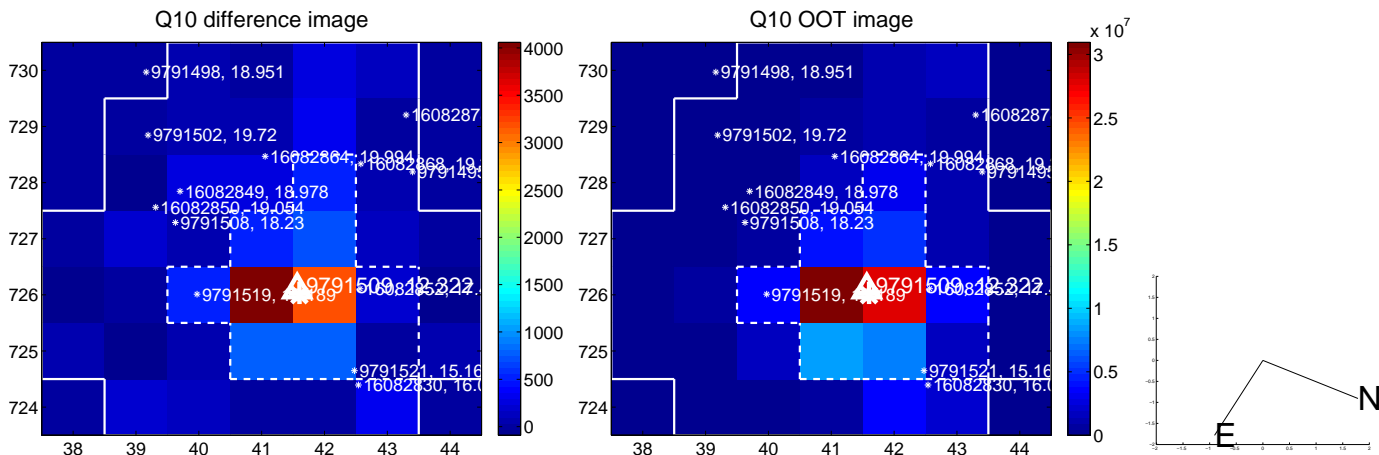
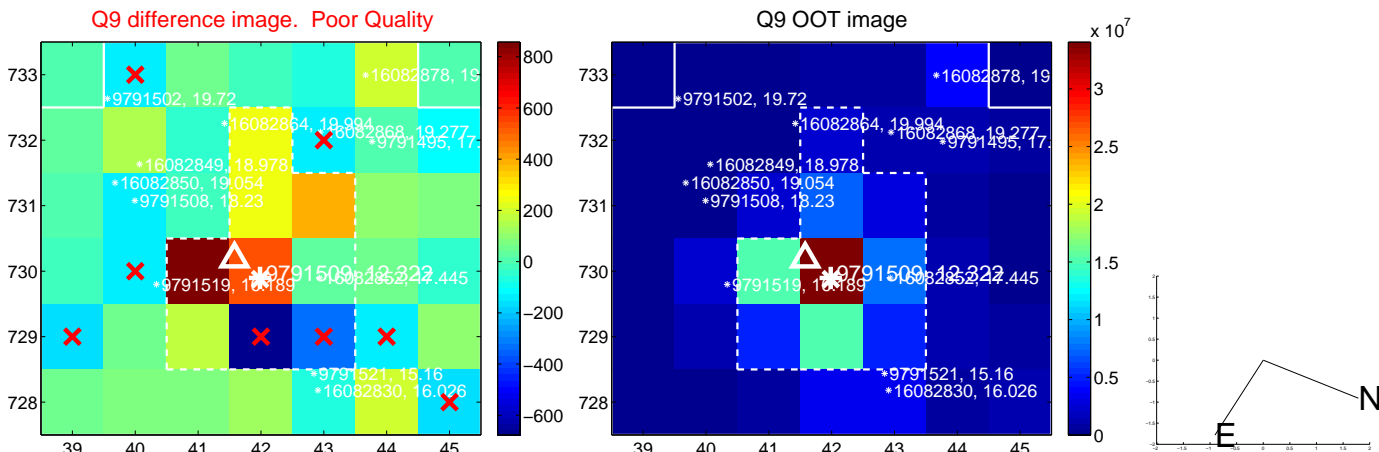
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



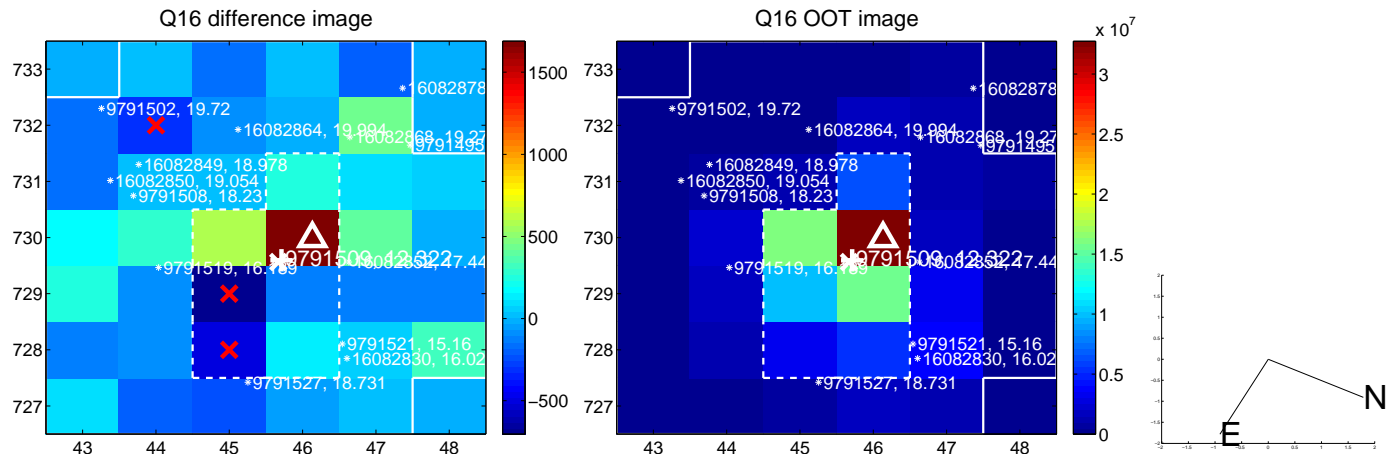
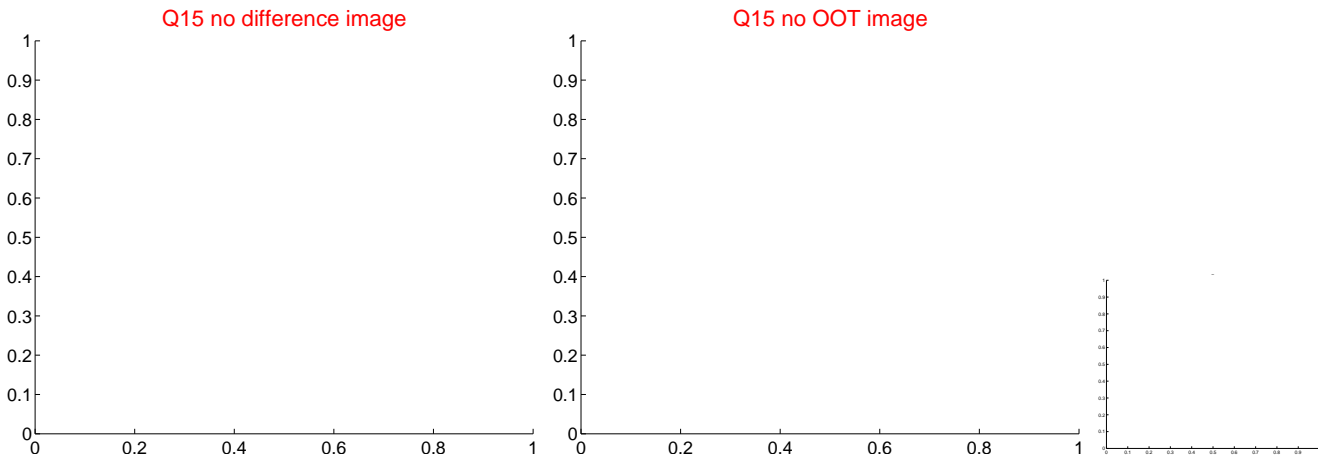
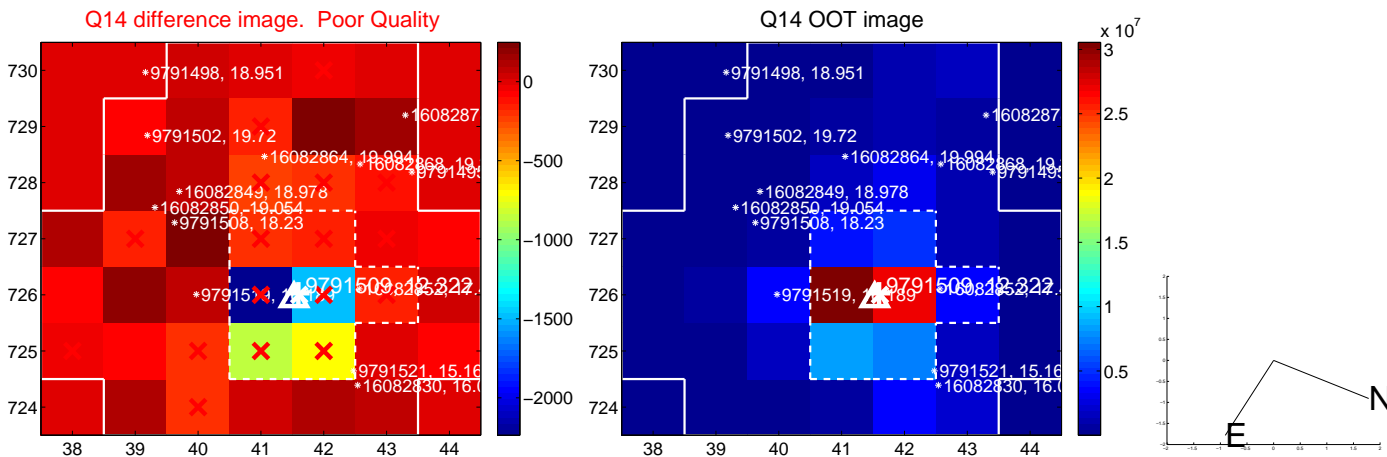
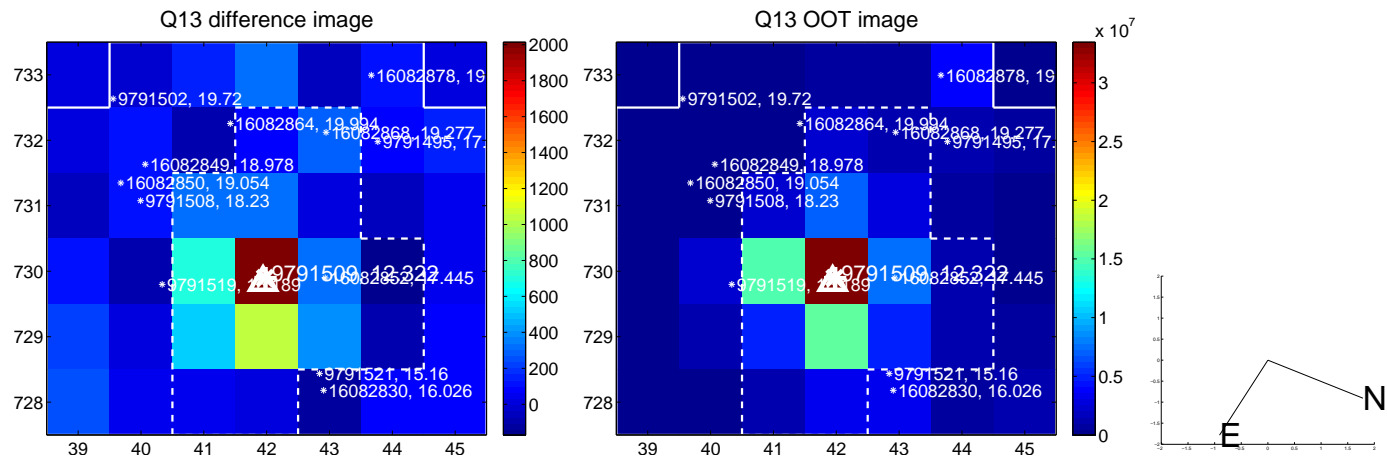
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



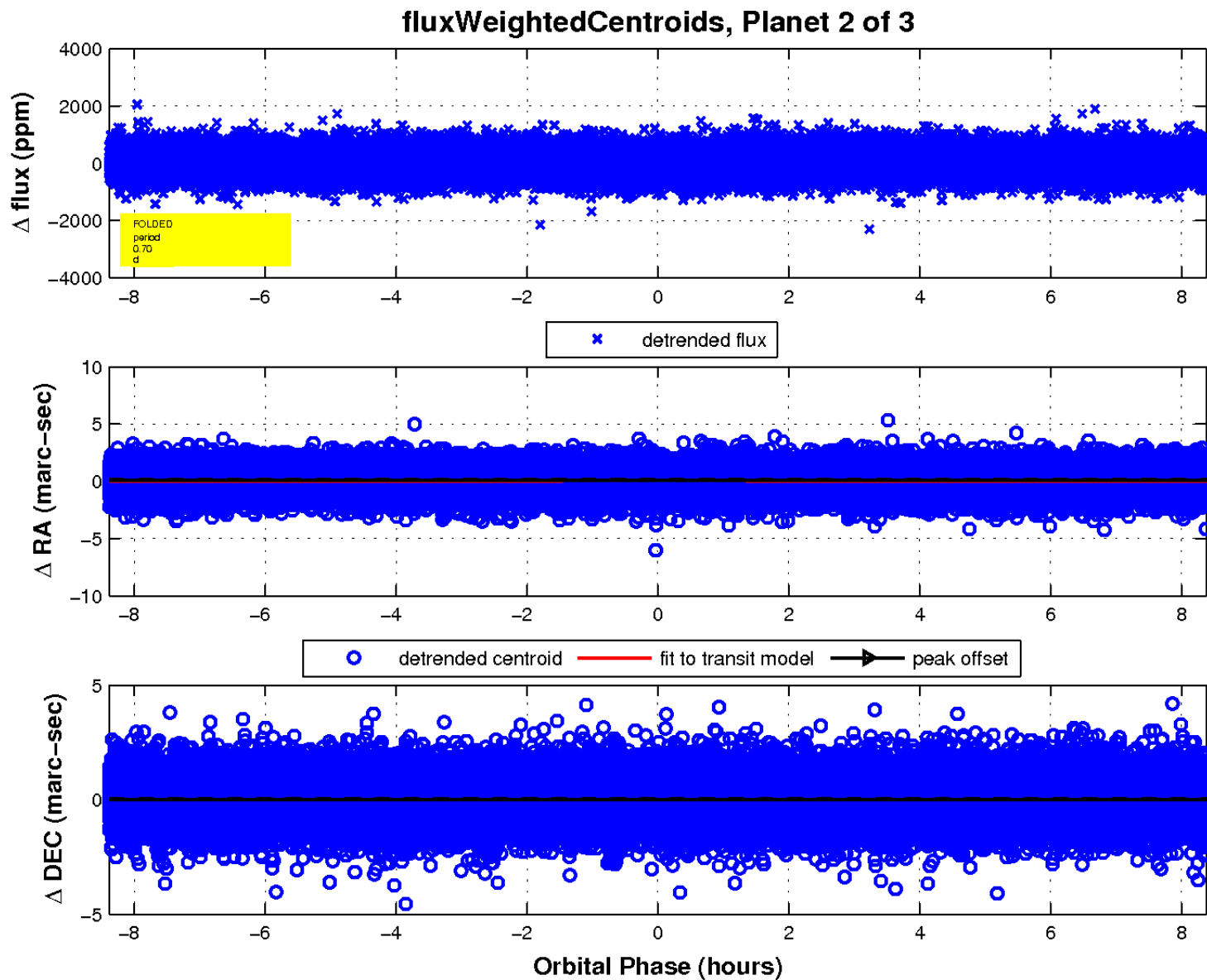
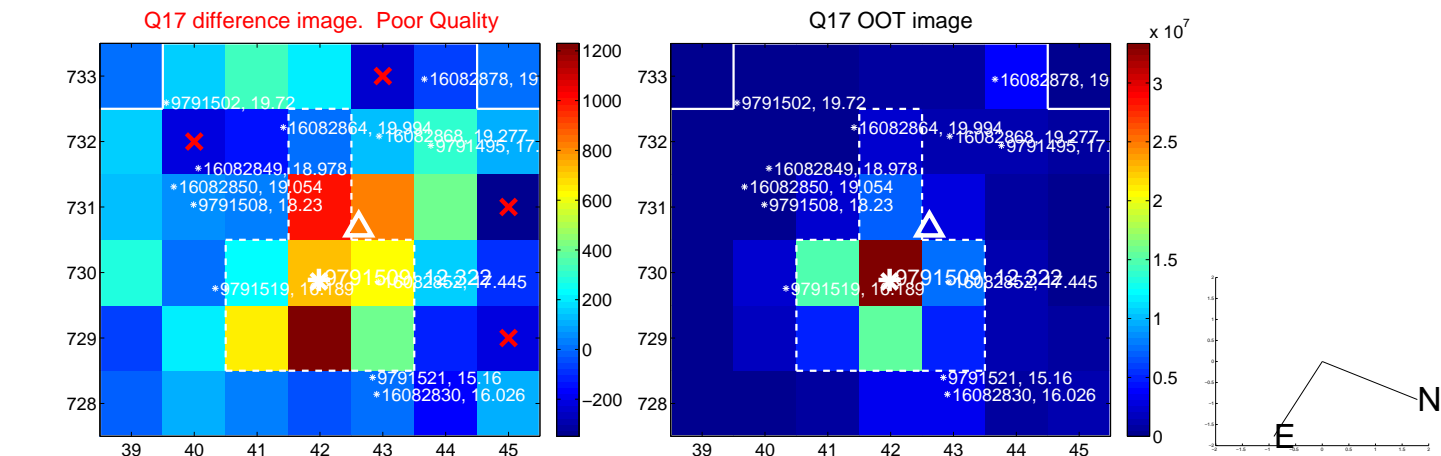
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

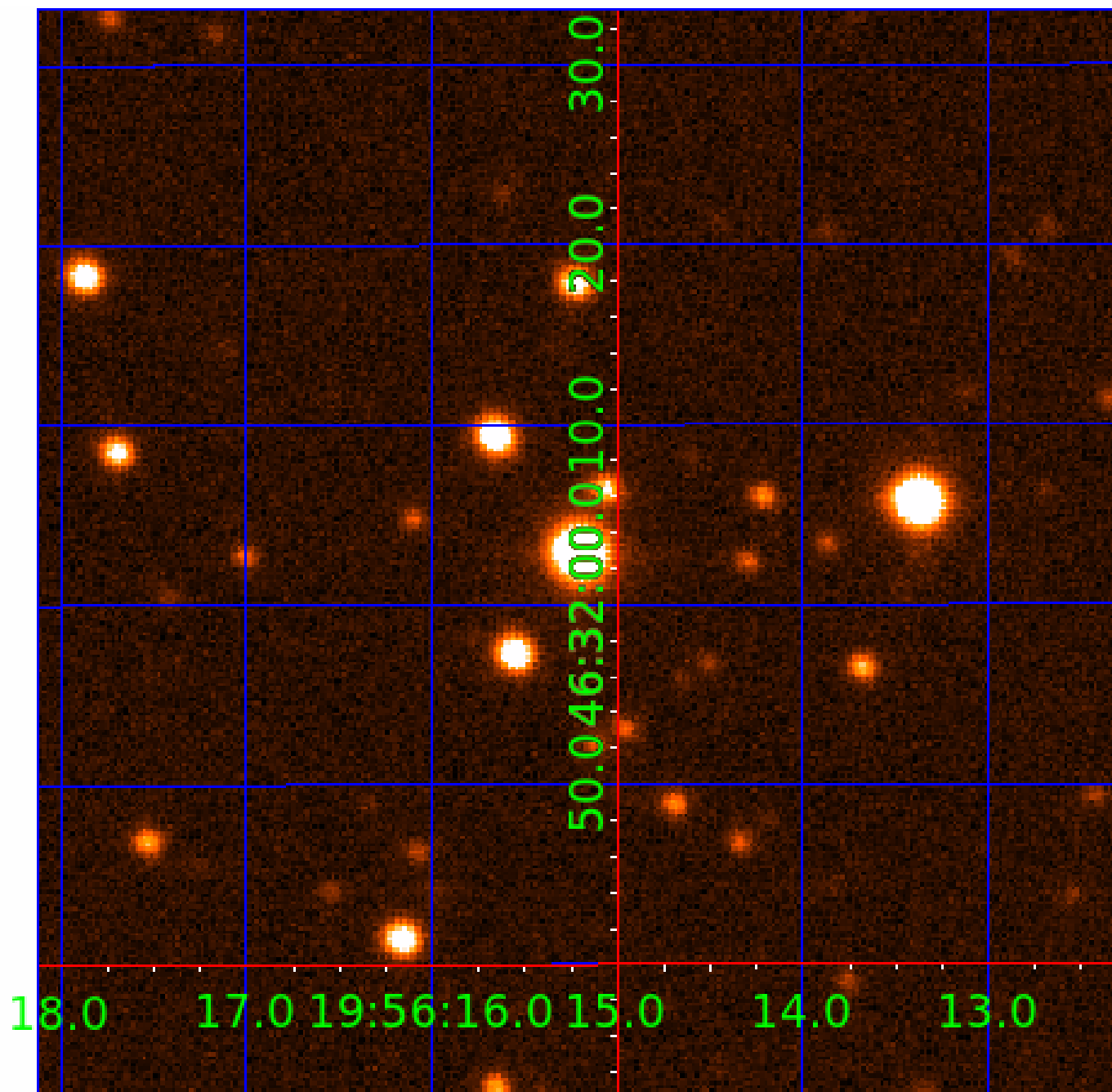


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009791509

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})
009791509-01	OBS	No	0.698553	131.924488	53.6	1.872	10.1	9.8	1.98	7992	1.68	40281.73
009791509-02	OBS	No	0.698510	132.214793	6.7	2.849	10.3	1.5	1.98	7992	0.52	40285.05
009791509-03	OBS	No	0.698562	131.698062	78.6	1.951	11.4	15.1	1.98	7992	1.82	40281.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009791509-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009791509-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
009791509-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

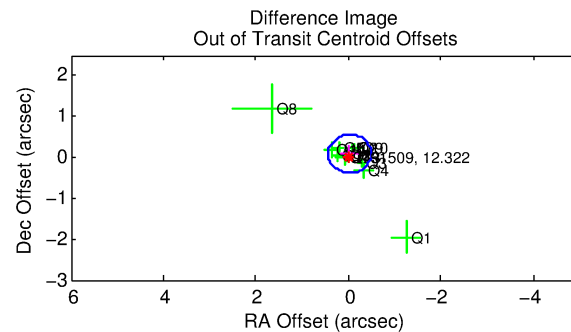
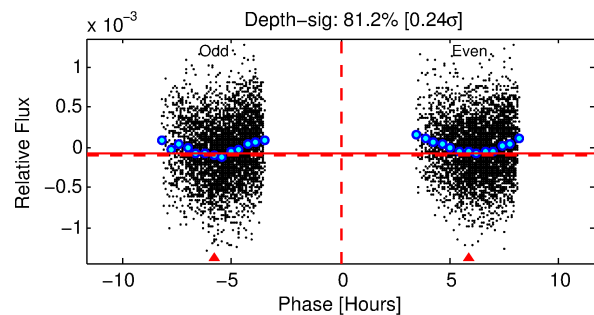
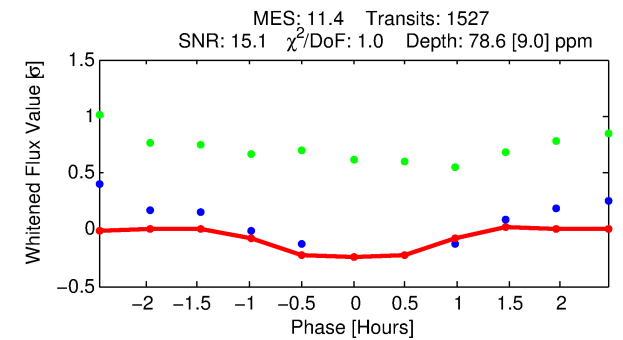
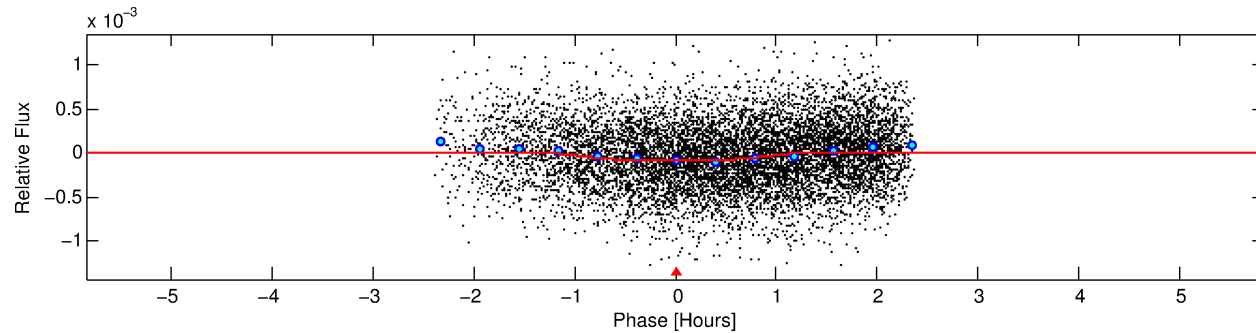
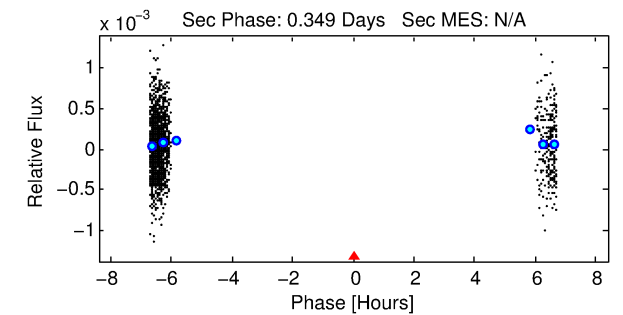
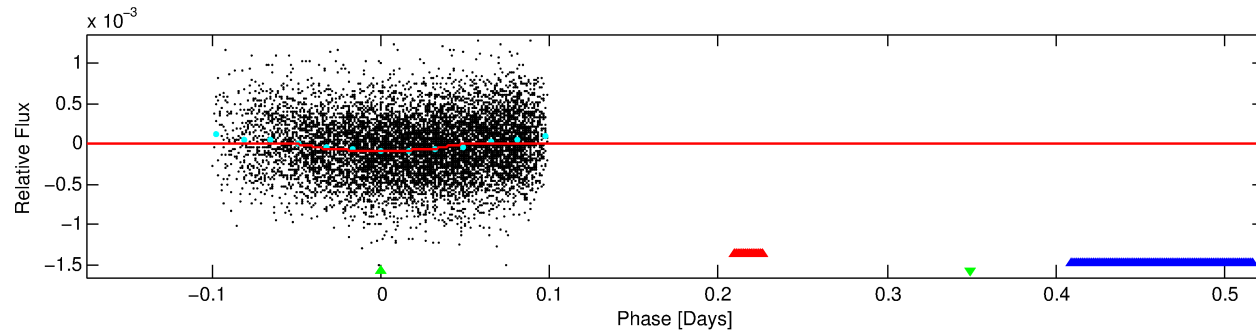
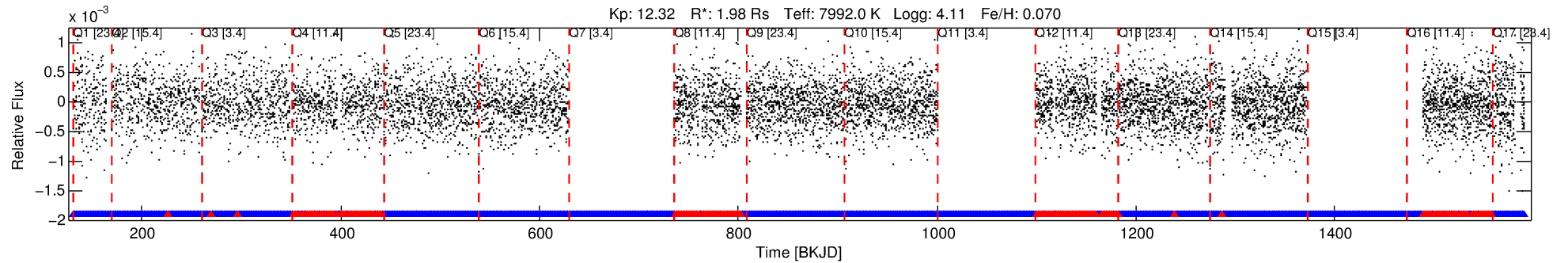
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009791509-03

No Significant Match Found

DV One-Page Summary

KIC: 9791509 Candidate: 3 of 3 Period: 0.699 d



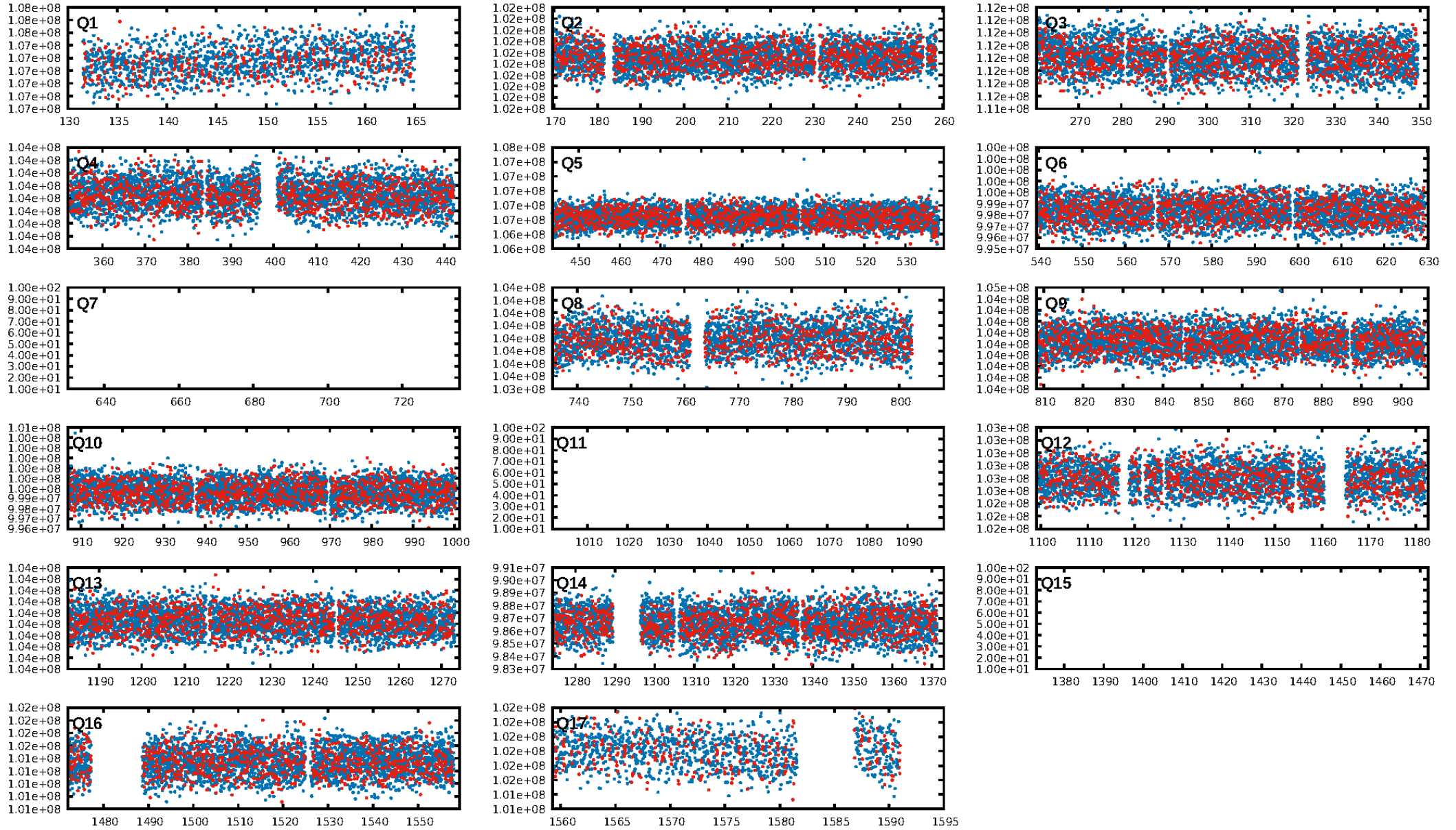
DV Fit Results:

Period = 0.69856 [0.00001] d
Epoch = 131.6981 [0.0022] BKJD
Rp/R* = 0.0085 [0.0029]
a/R* = 2.49 [4.31]
b = 0.50 [3.06]
Seff = 40281.10 [13696.20]
Teff = 3612 [307] K
Rp = 1.82 [0.78] Re
a = 0.0188 [0.0038] AU

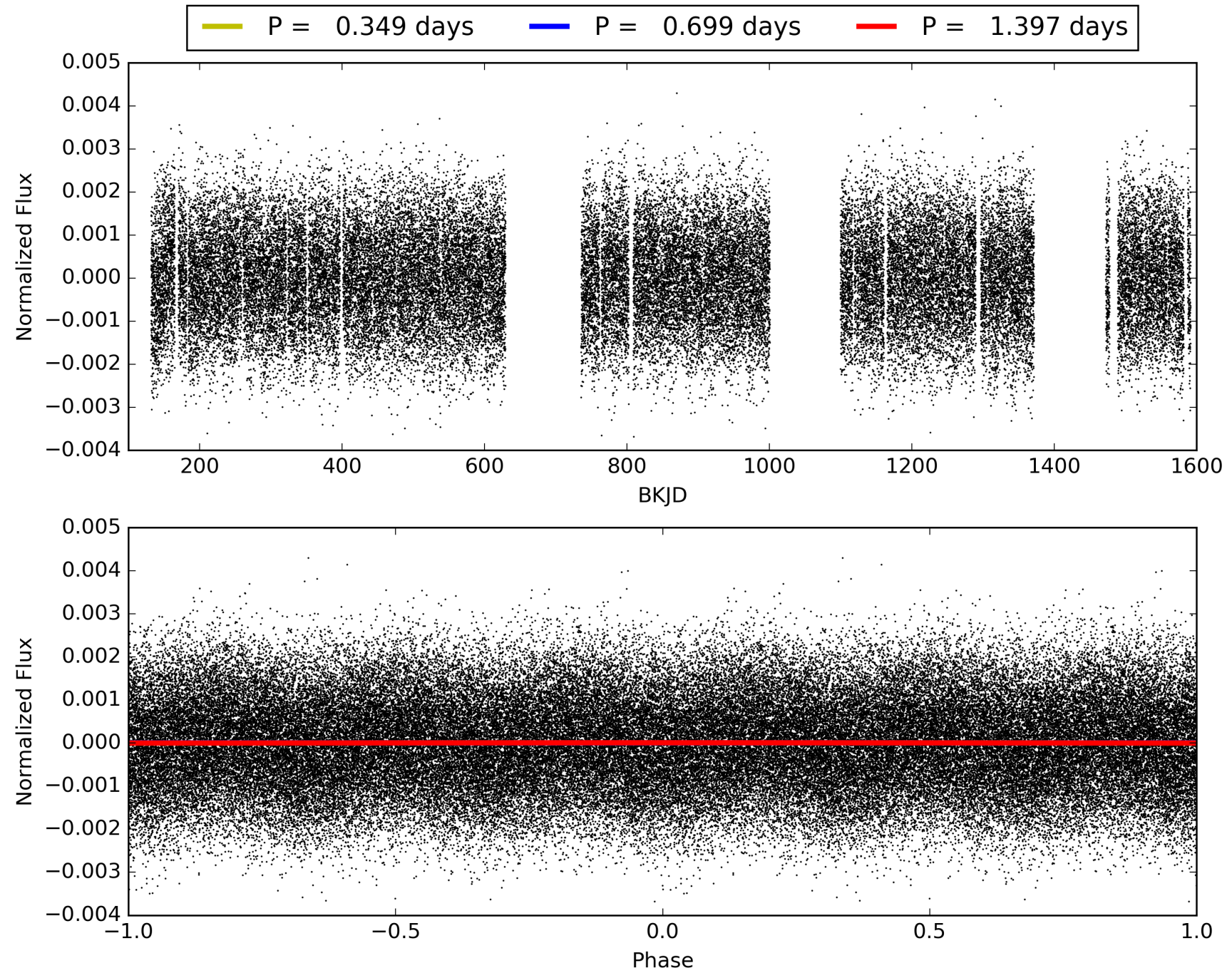
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.79 [1135/1440]
GhostDiagnostic-chr: 1.274
Centroid-sig: 0.0%
Centroid-so: 1.332 arcsec [3.13 σ]
OotOffset-rm: 0.091 arcsec [0.58 σ]
KicOffset-rm: 0.134 arcsec [1.39 σ]
OotOffset-st: 4/1/4/4 [13]
KicOffset-st: 4/1/4/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 0.00 [0/14]

TCE 009791509-03, PDC Light Curves

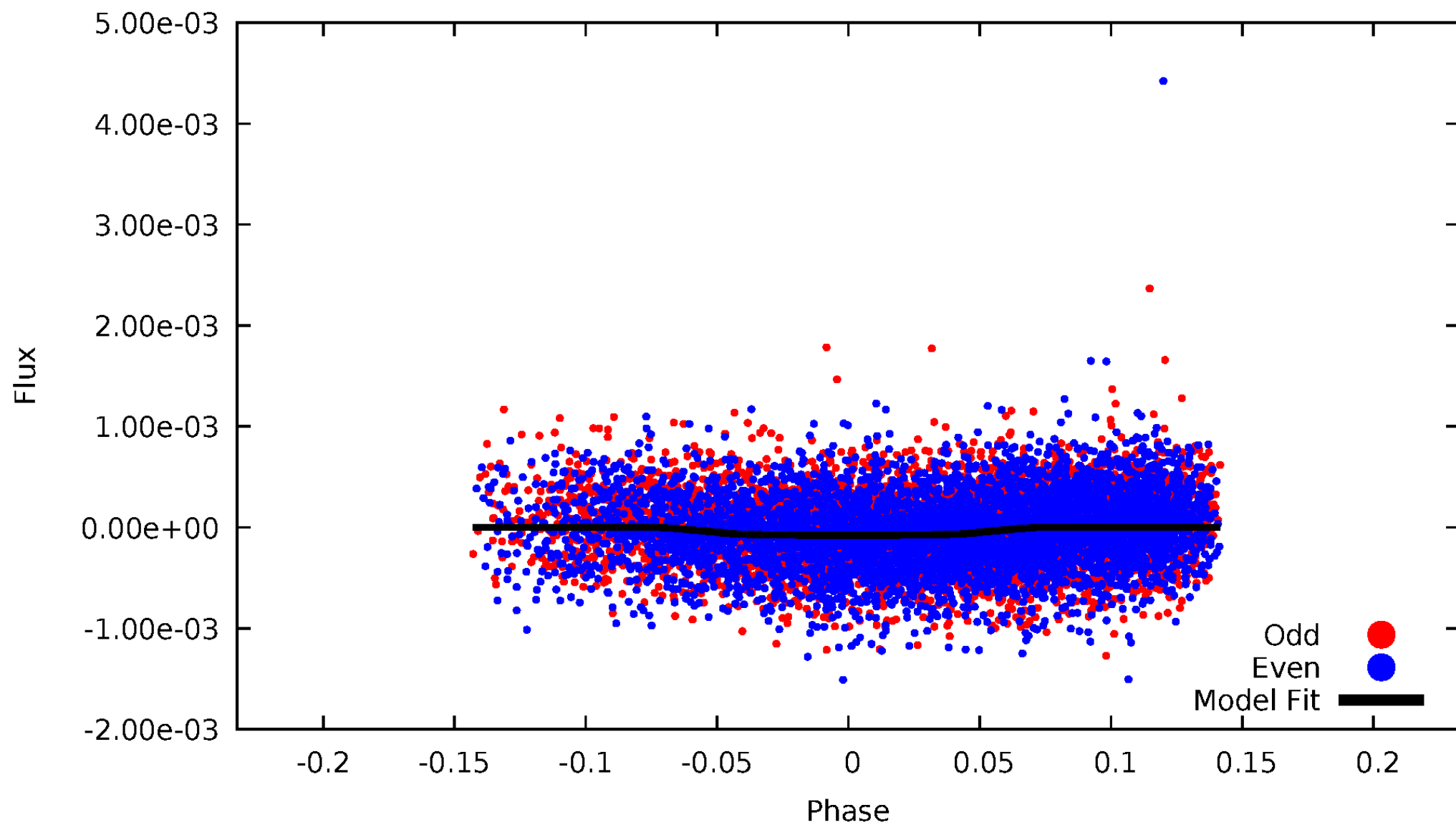


TCE 009791509-03



DV Odd/Even

TCE 009791509-03

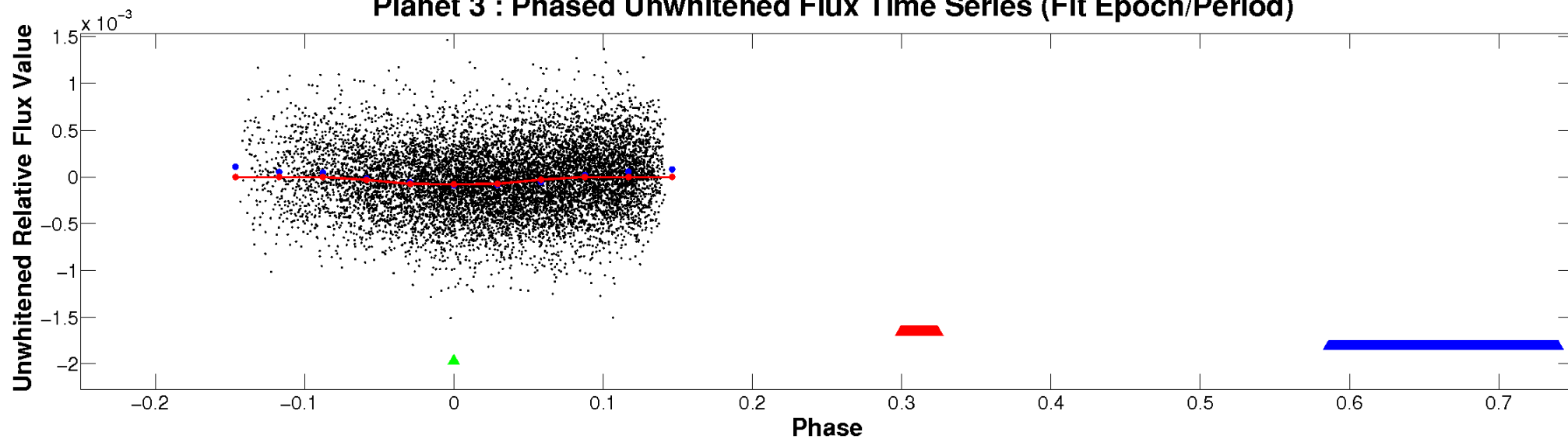


ALT Odd/Even

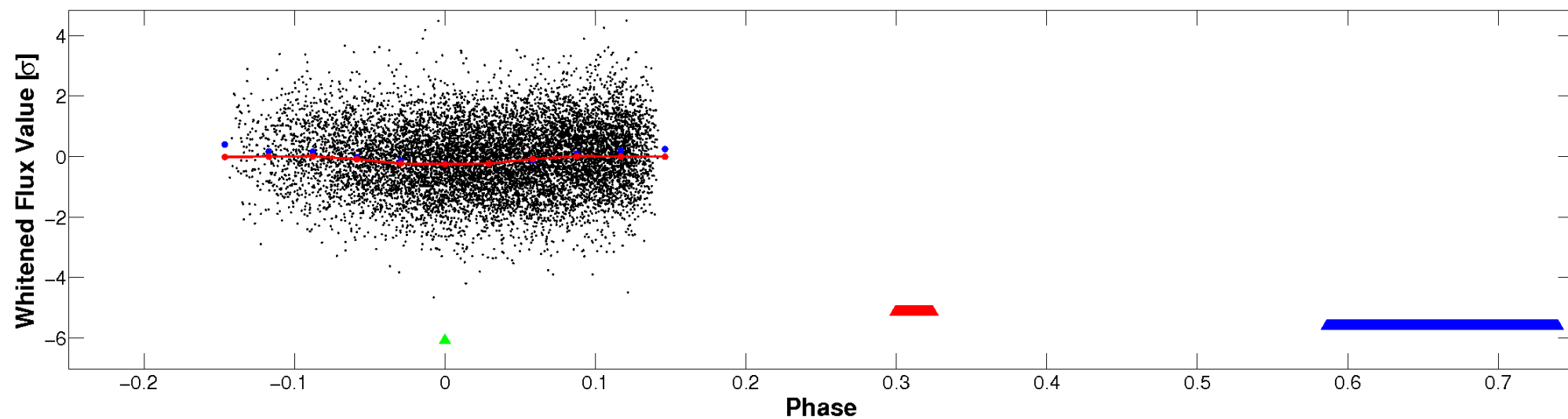
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

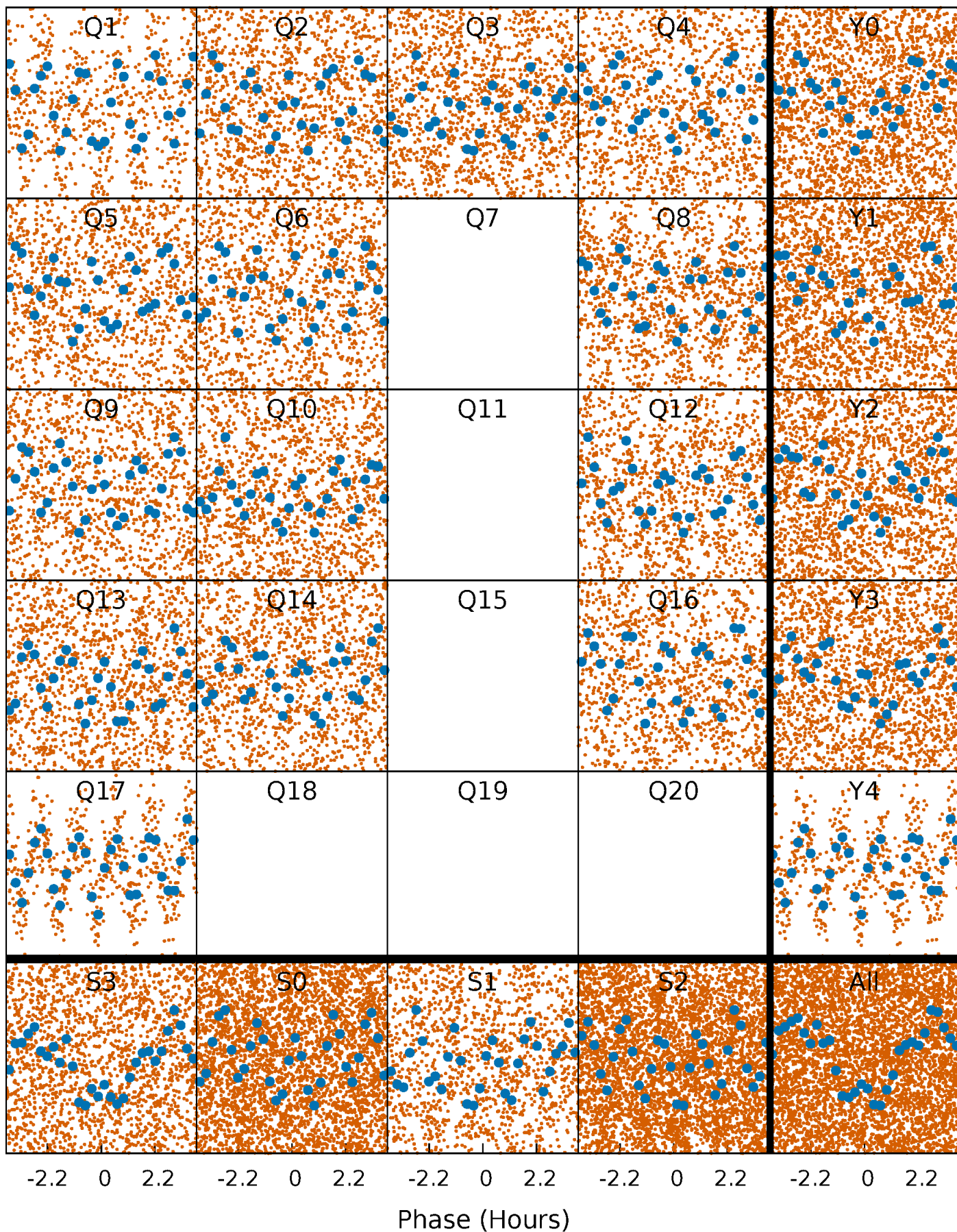


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



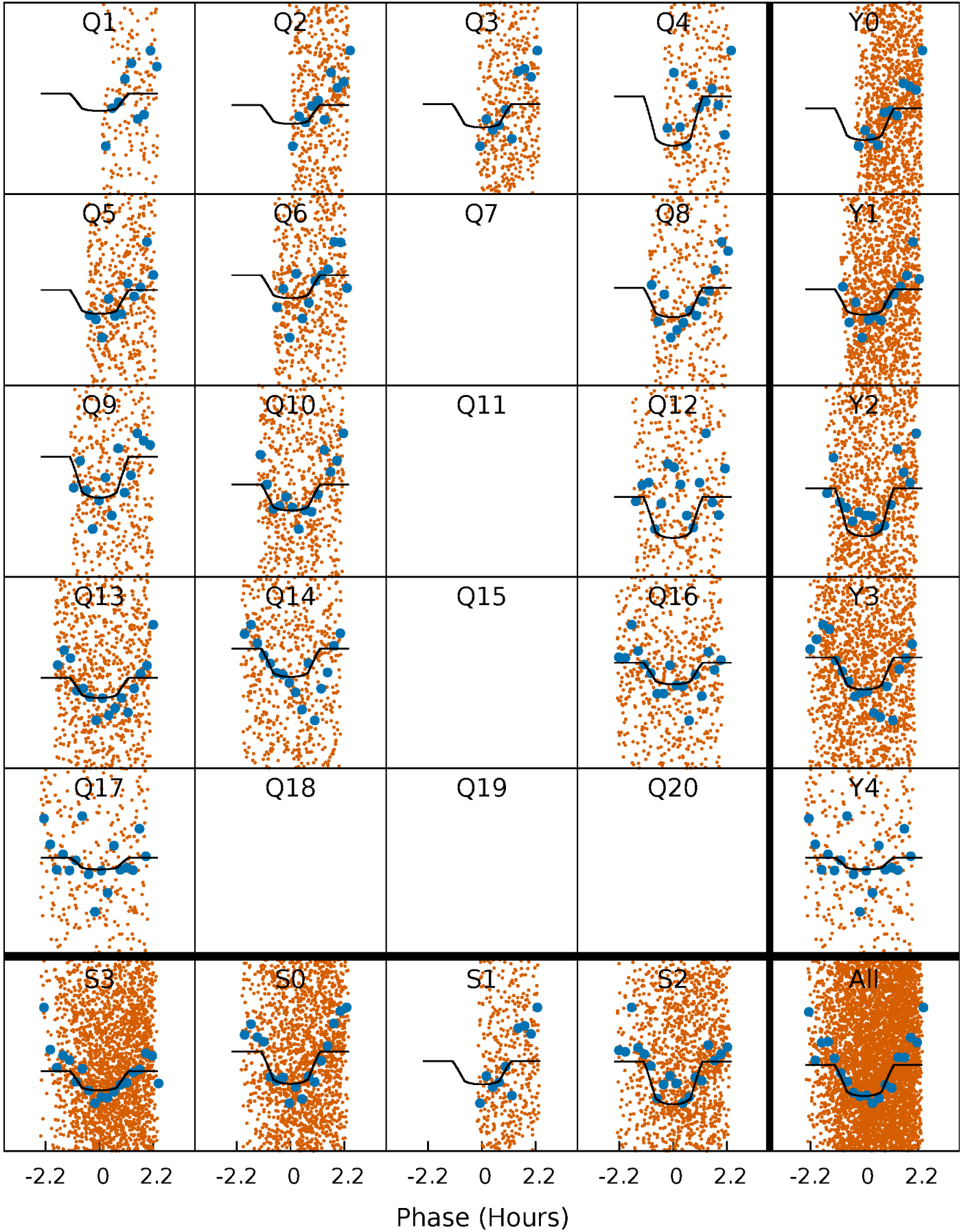
PDC Quarter-Phased Transit Curves

TCE 009791509-03 P= 0.698562 Days $T_0=131.698062$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 009791509-03 P= 0.698562 Days $T_0=131.698062$ (BKJD)

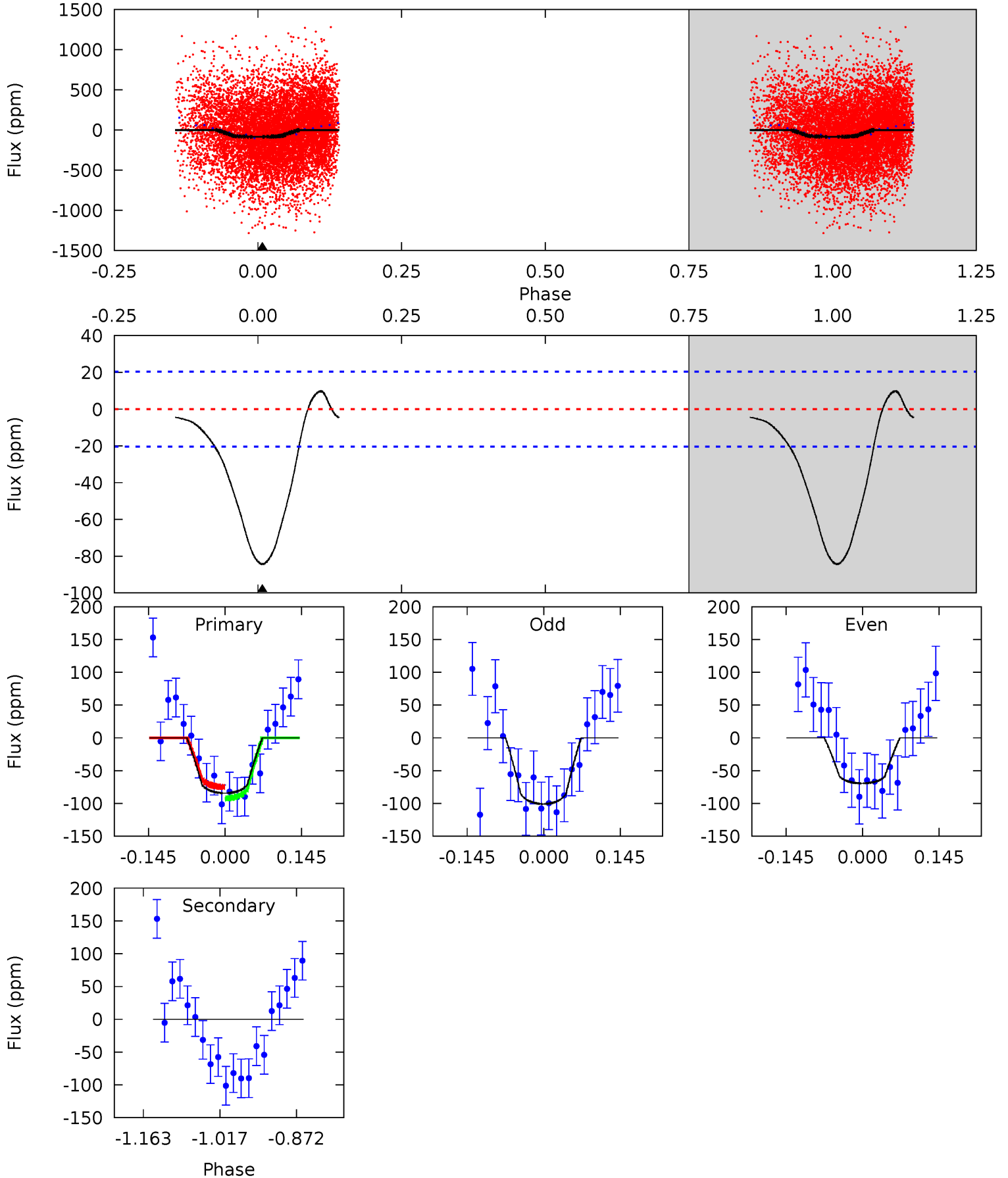


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

009791509-03, P = 0.698562 Days, E = 131.698062 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	0	0	0	4.49	1.46	1.20	18.6	18.6	0	0	3.45	1.14	0.10	1.83



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 009791509

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7992^{+193}_{-359}	$4.107^{+0.126}_{-0.154}$	$0.070^{+0.250}_{-0.400}$	$1.976^{+0.491}_{-0.357}$	$1.823^{+0.159}_{-0.318}$	$0.333^{+0.216}_{-0.153}$
	+2%/-4%	+3%/-4%	+357%/-571%	+25%/-18%	+9%/-17%	+65%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009791509-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 5	$1.86^{+0.69}_{-0.68}$	5044^{+335}_{-315}	-4305^{+1296}_{-644}	$-0.014^{+0.282}_{-0.303}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

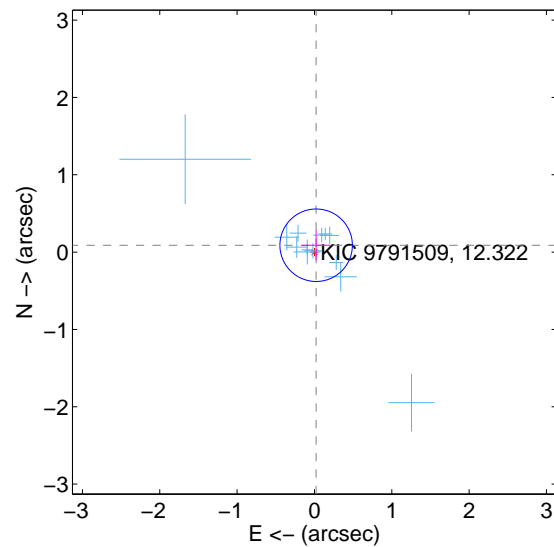
Supplemental centroid analysis for 009791509-03. Kepler magnitude: 12.32. Transit SNR 15.15

There are 13 quarters with good PRF difference image offsets

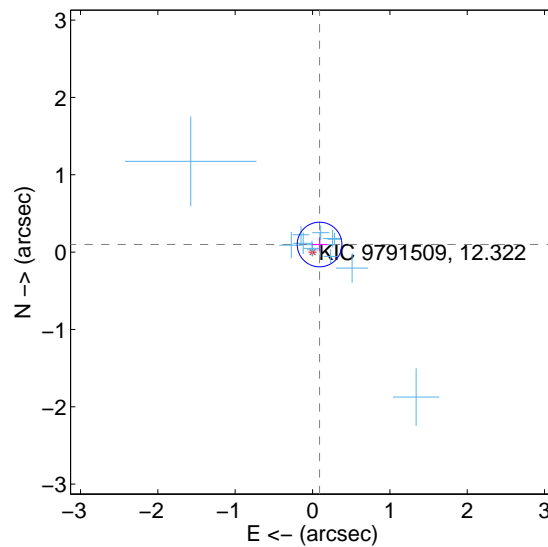
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.091 ± 0.156	0.58	-0.022 ± 0.188	0.089 ± 0.195
PRF-fit source offset from KIC position	0.134 ± 0.096	1.39	-0.091 ± 0.102	0.098 ± 0.091
photometric centroid source offset	1.33 ± 0.43	3.13	-1.33 ± 0.43	0.06 ± 0.38

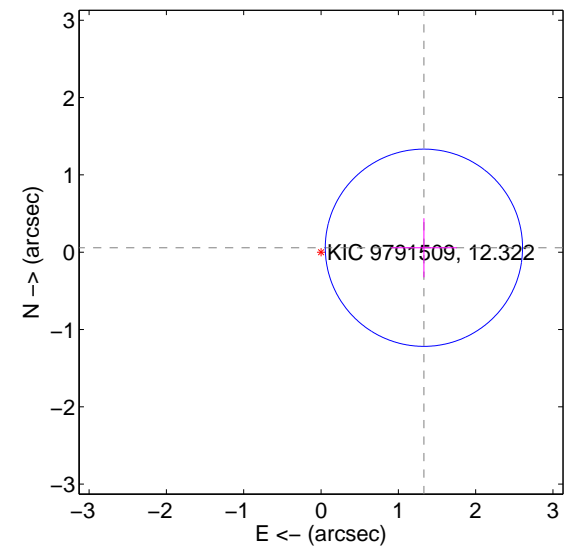
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

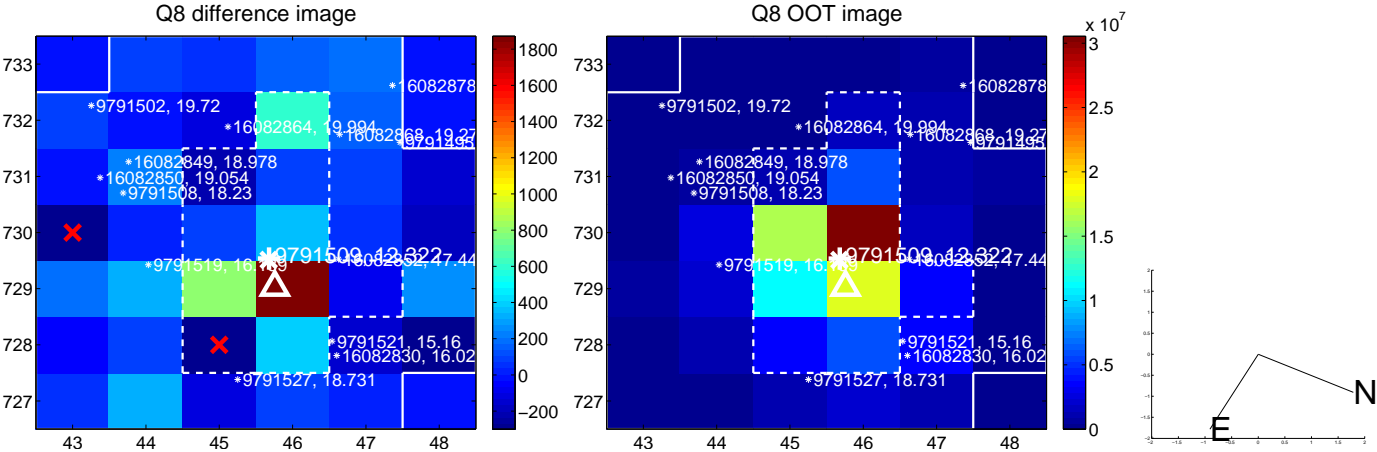
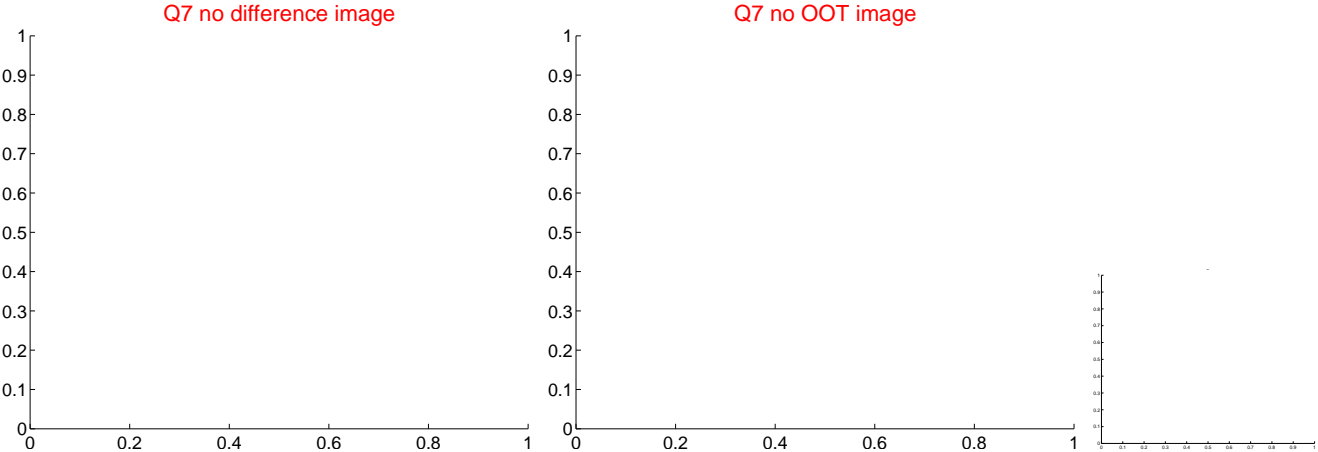
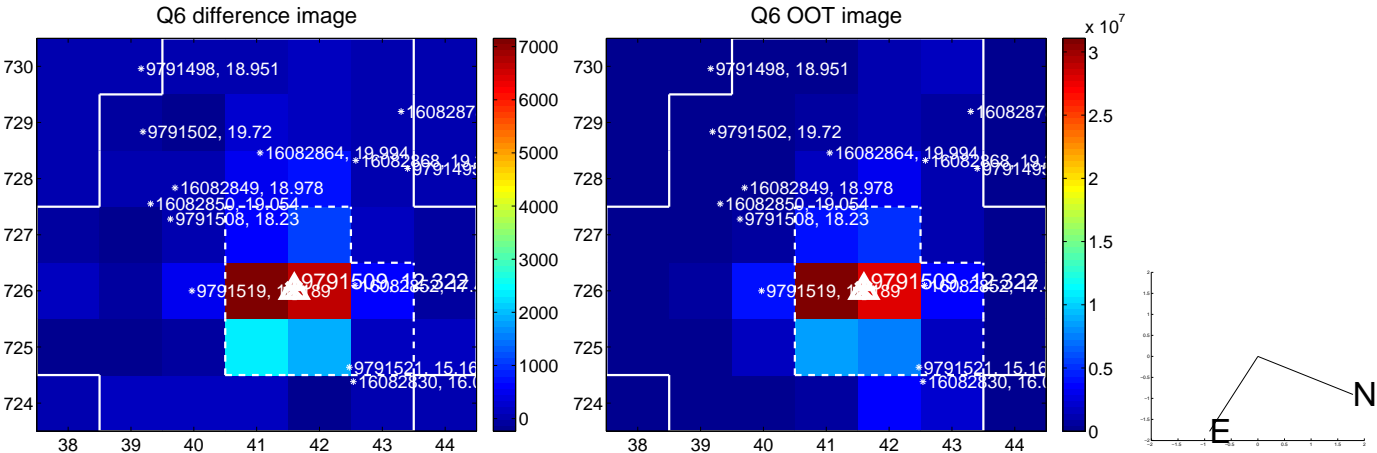
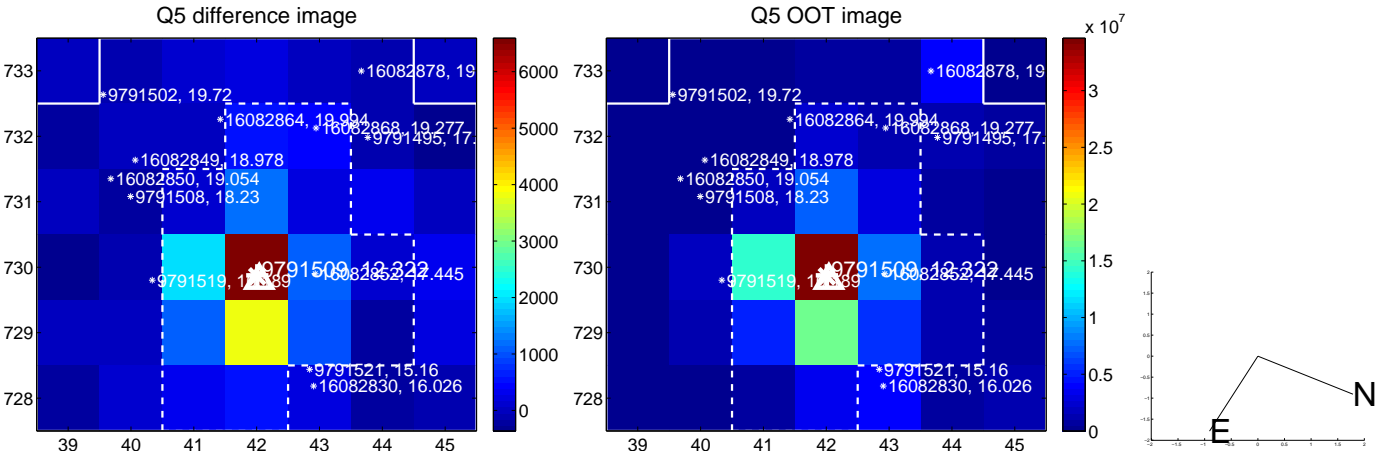


offset from photometric centroids

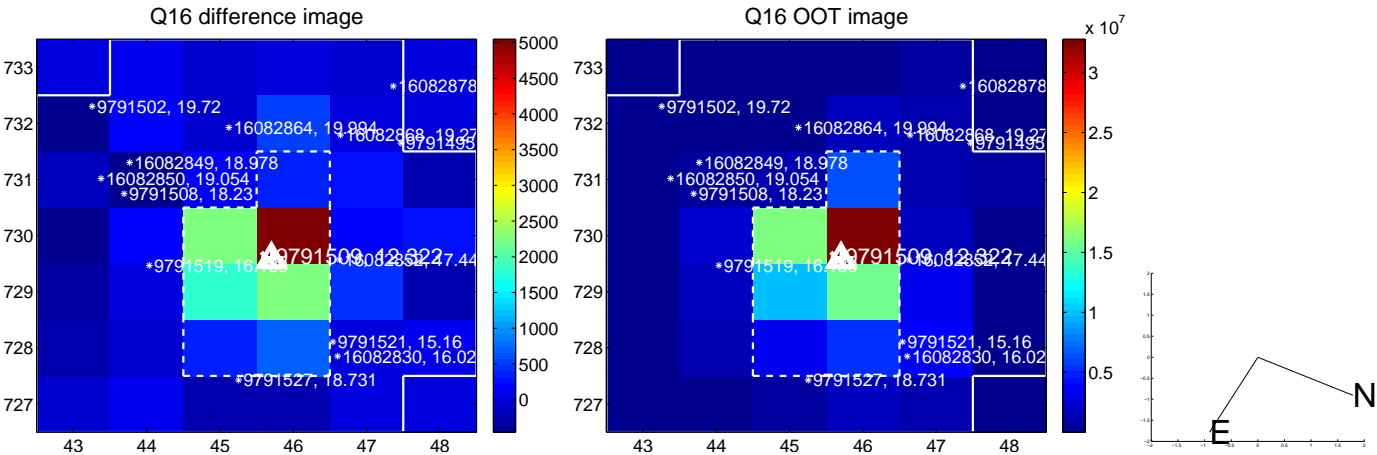
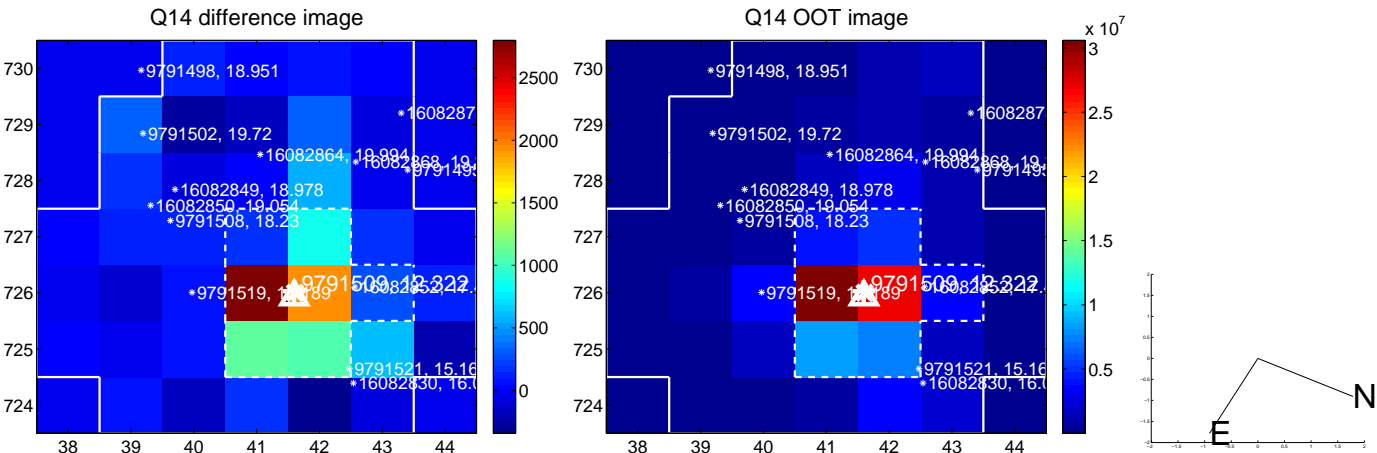
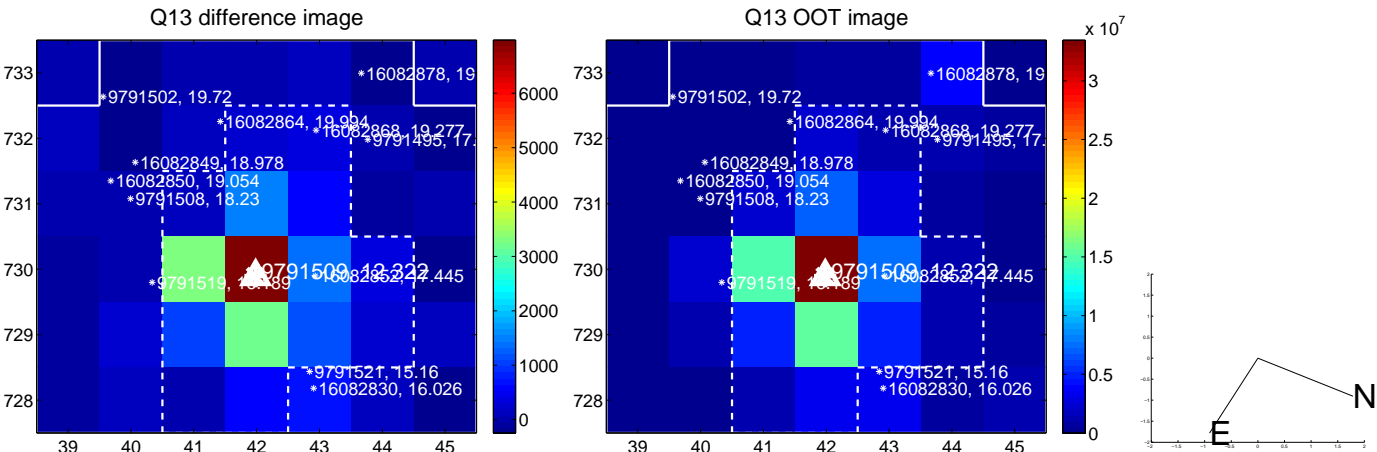


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

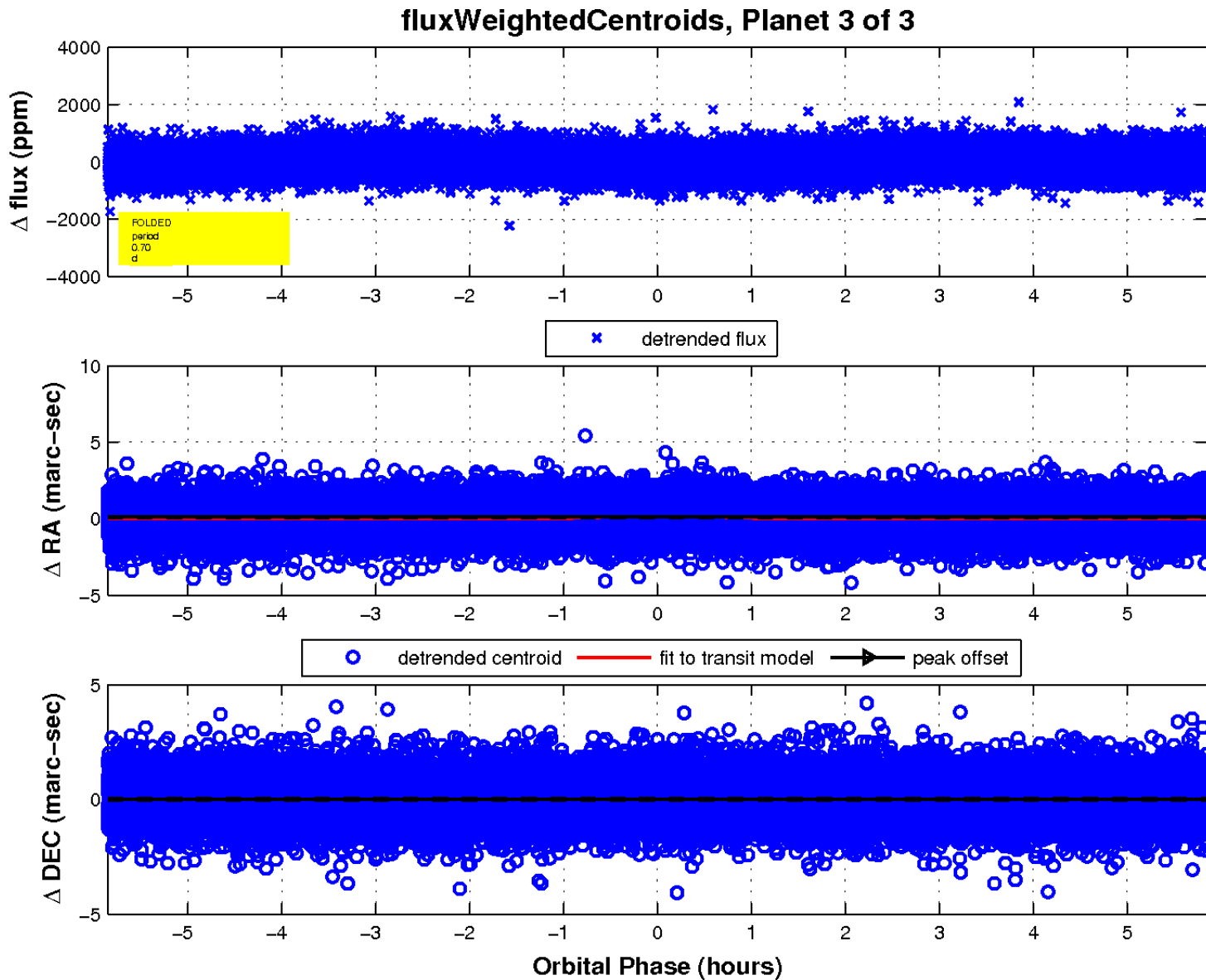
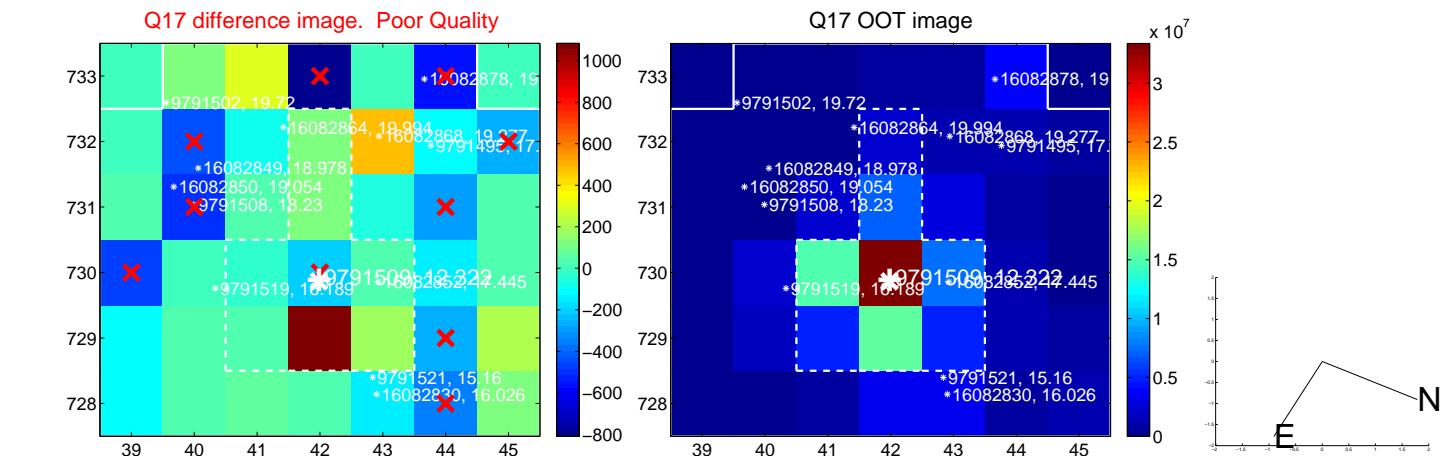
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

