

KIC 009526946

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})
009526946-01	OBS	No	0.849310	132.024093	67.4	2.743	11.6	12.2	1.93	8677	1.82	48469.92
009526946-02	OBS	No	0.849306	131.811400	62.4	1.684	8.1	8.7	1.93	8677	1.76	48470.22
009526946-03	OBS	No	1.800493	131.725071	90.1	21.606	8.9	14.4	1.93	8677	2.18	17798.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009526946-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009526946-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD
009526946-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_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.

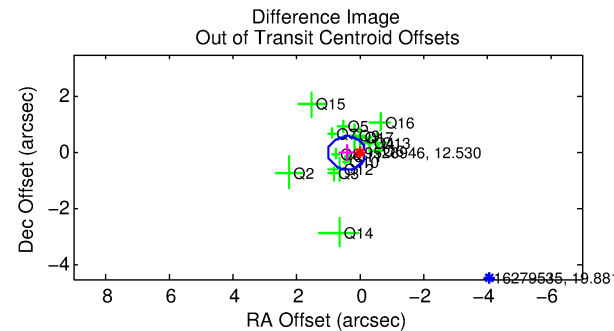
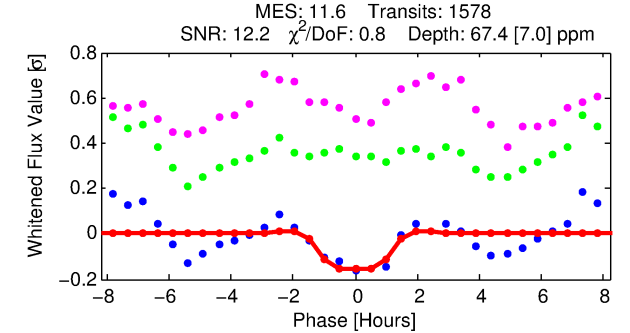
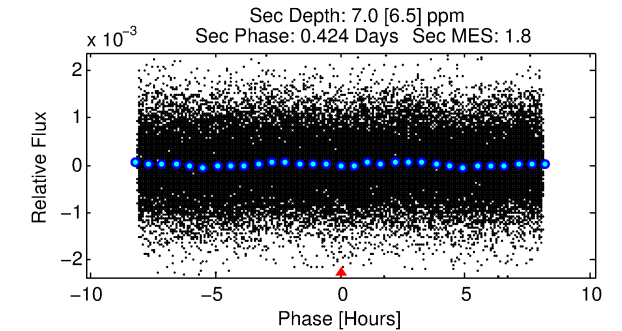
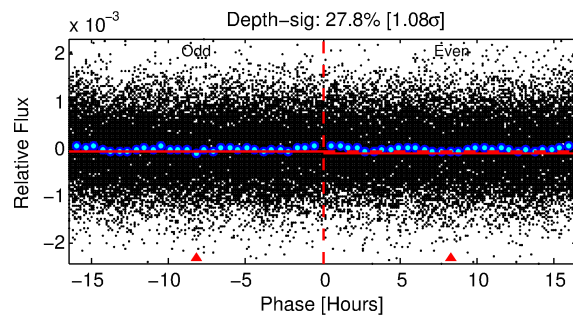
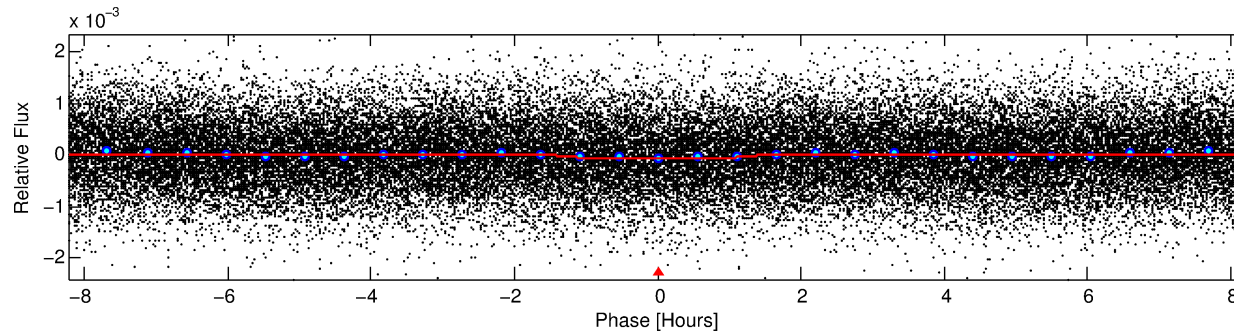
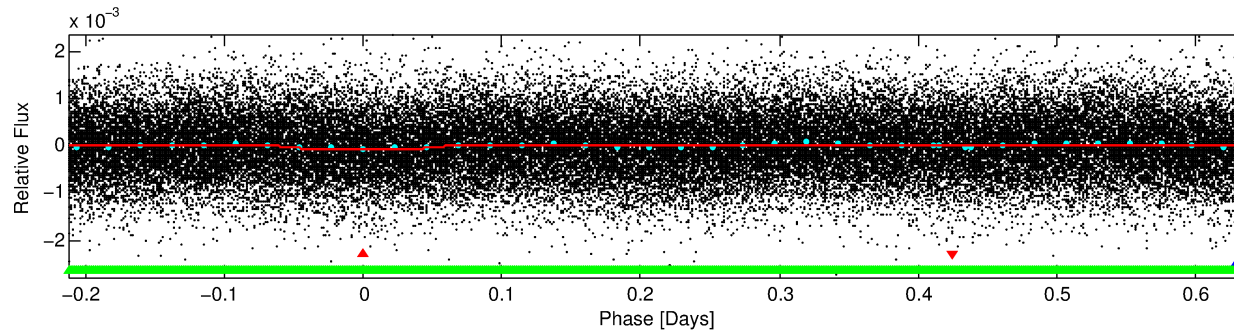
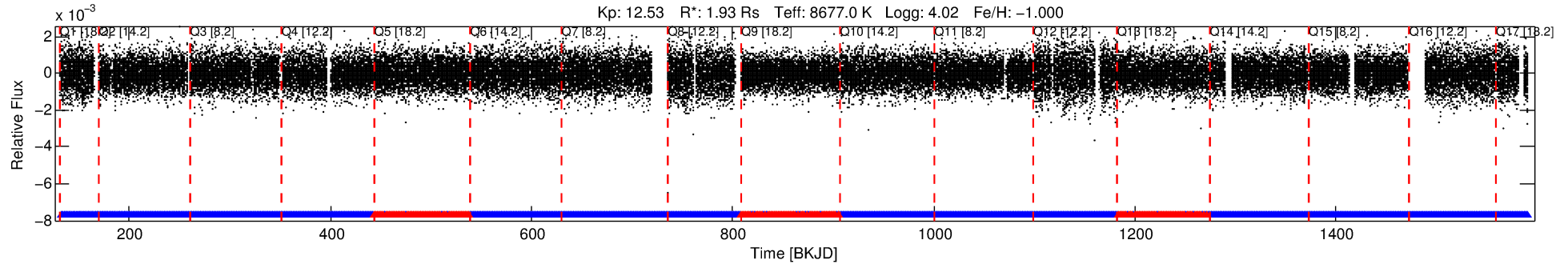
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009526946-01

No Significant Match Found

DV One-Page Summary

KIC: 9526946 Candidate: 1 of 3 Period: 0.849 d



DV Fit Results:

Period = 0.84931 [0.00001] d
Epoch = 132.0241 [0.0031] BKJD
Rp/R* = 0.0086 [0.0050]
a/R* = 1.48 [3.05]
b = 0.88 [0.96]
Seff = 48469.92 [30294.94]
Teq = 3784 [591] K
Rp = 1.82 [1.25] Re
a = 0.0198 [0.0073] AU
Ag = 0.45 [0.73] [-0.75 σ]
Teffp = 4798 [1795] K [0.54 σ]

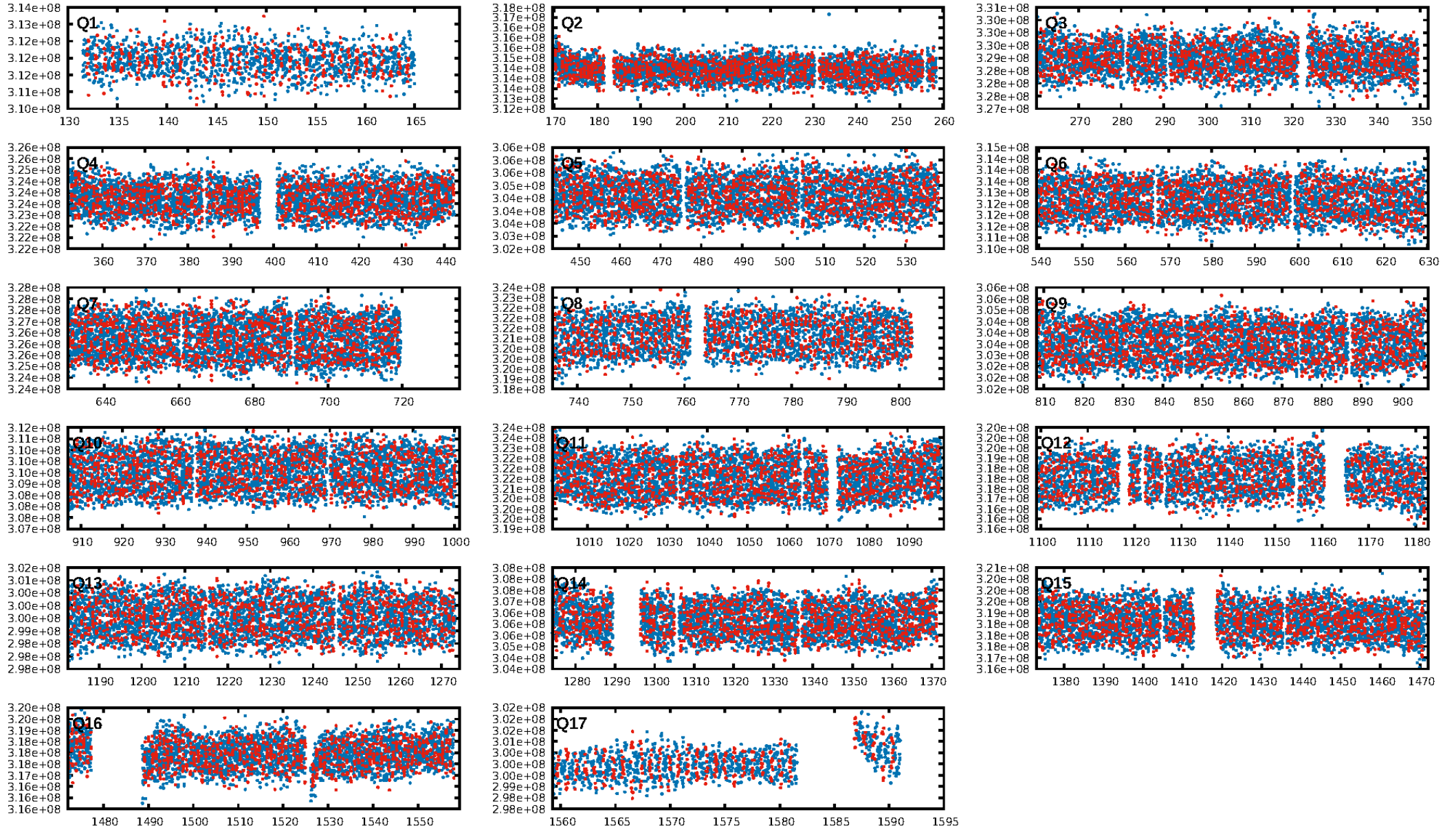
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 70.5% [1.05 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.83 [1253/1508]
GhostDiagnostic-chr: 2.545
Centroid-sig: 34.5%
Centroid-so: 0.262 arcsec [1.50 σ]
OotOffset-rm: 0.405 arcsec [2.08 σ]
KicOffset-rm: 0.478 arcsec [2.37 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 0.00 [0/17]

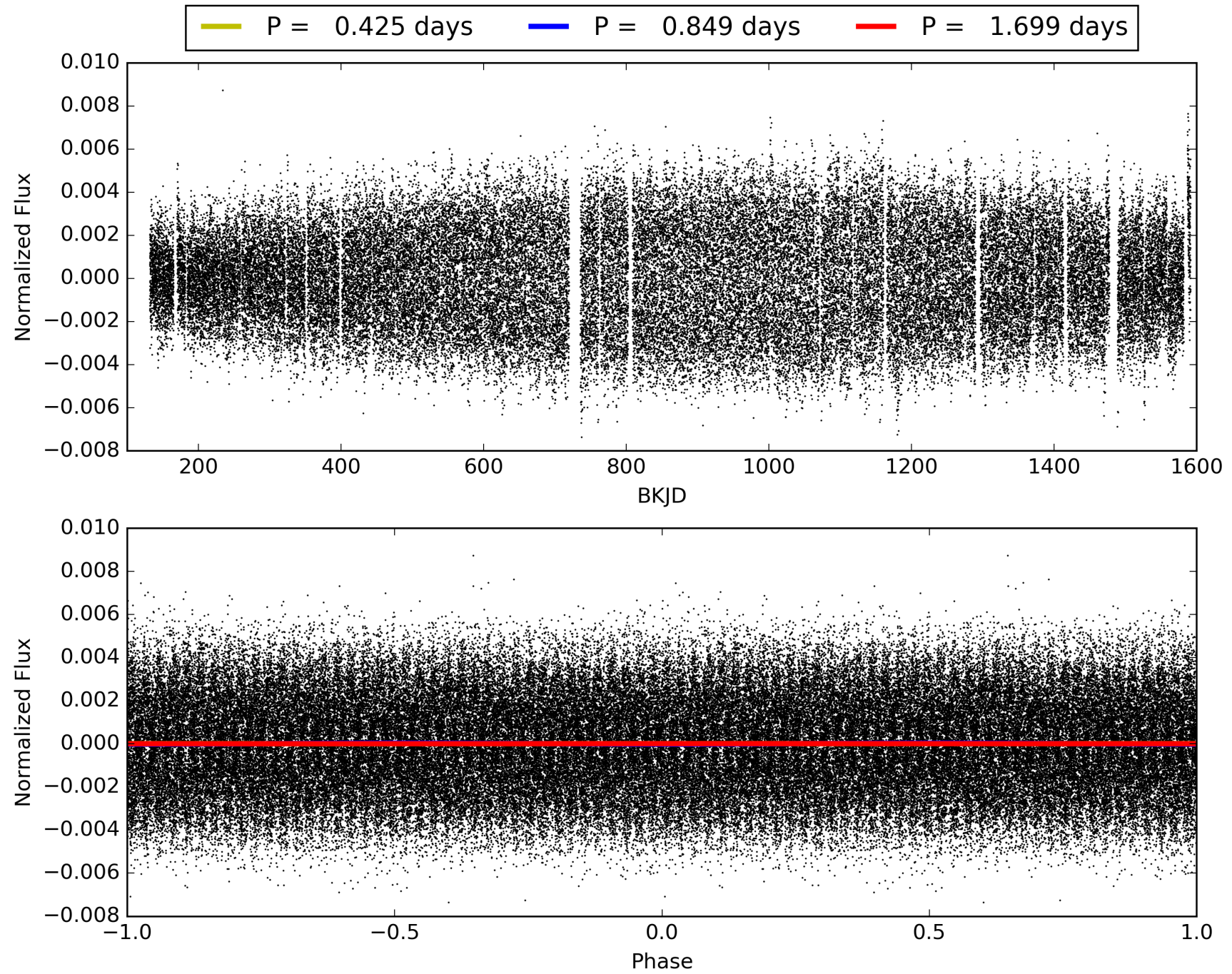
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:30:53 Z

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

TCE 009526946-01, PDC Light Curves

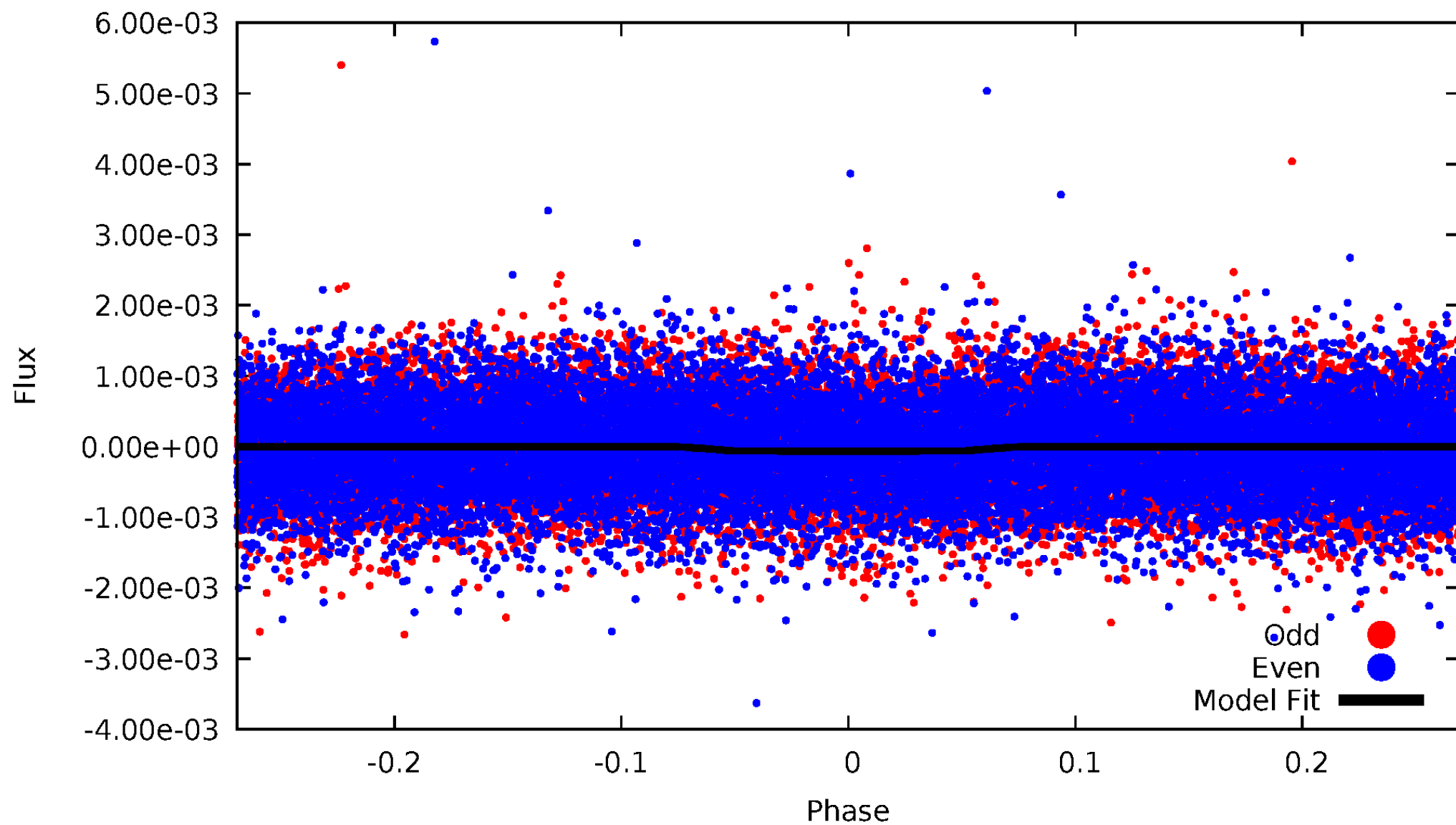


TCE 009526946-01



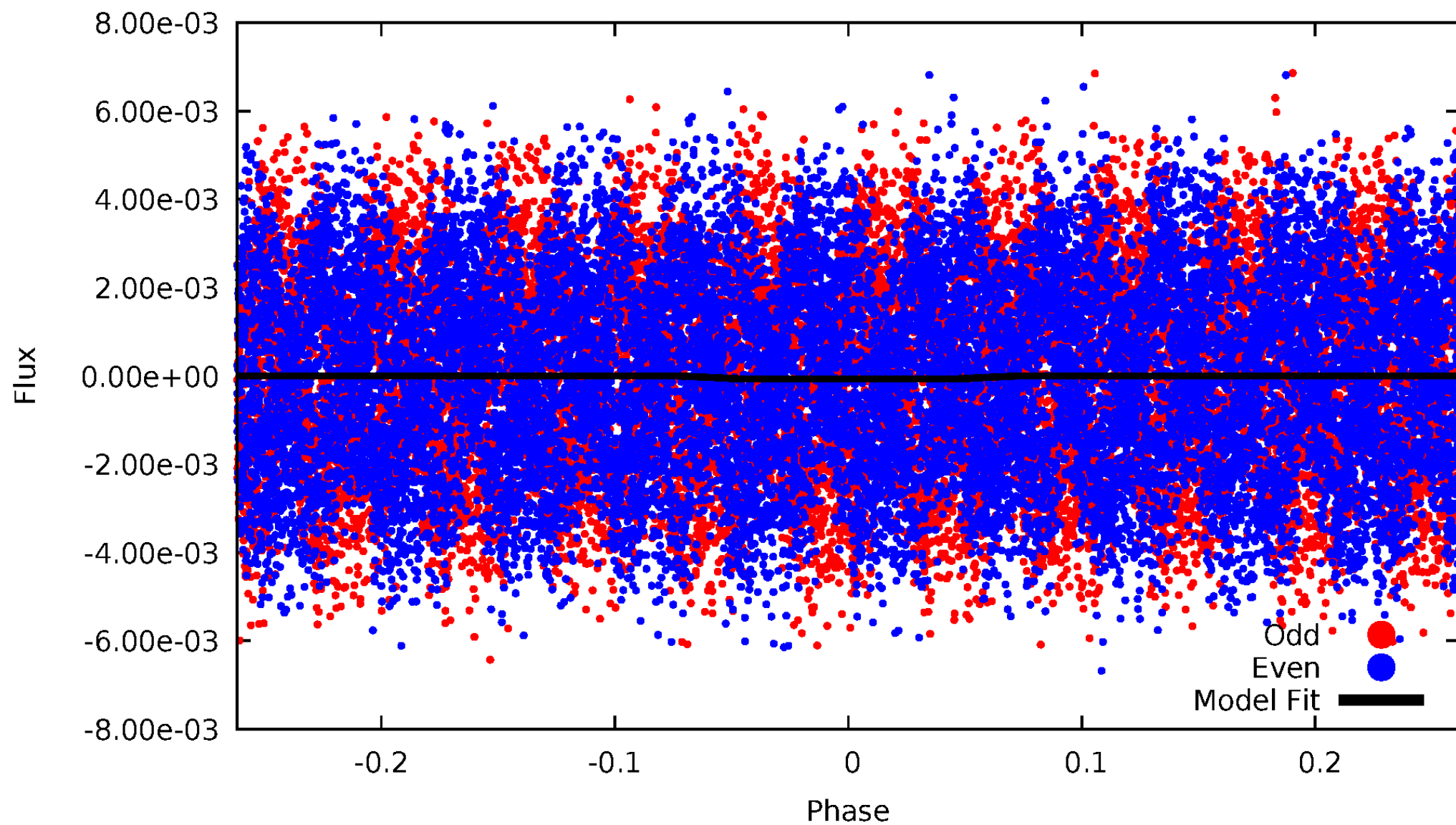
DV Odd/Even

TCE 009526946-01

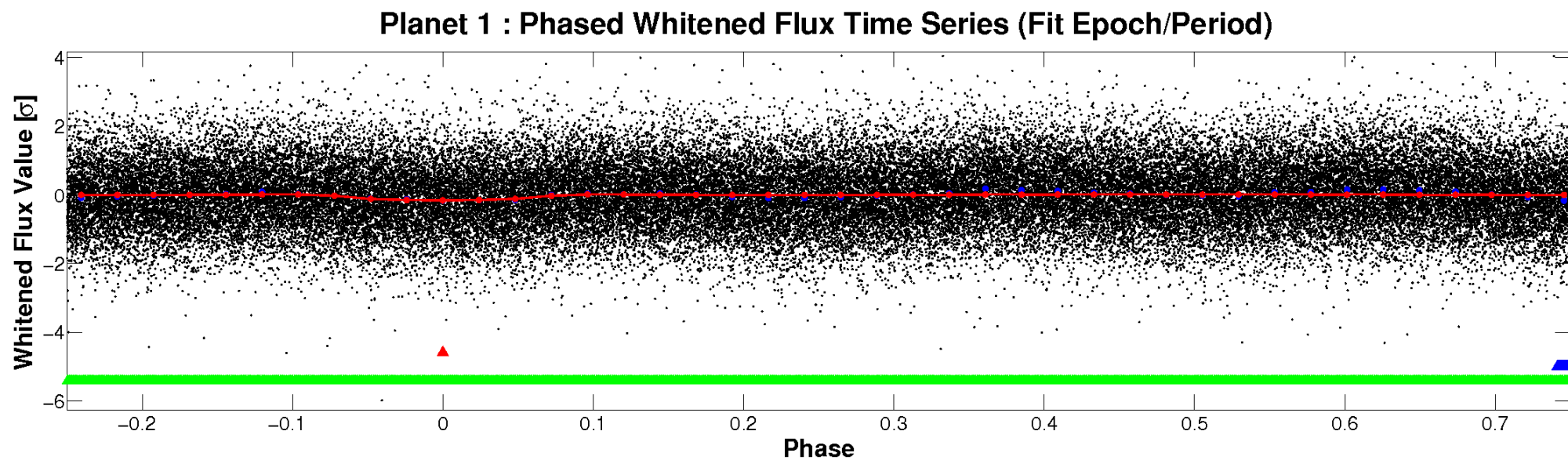
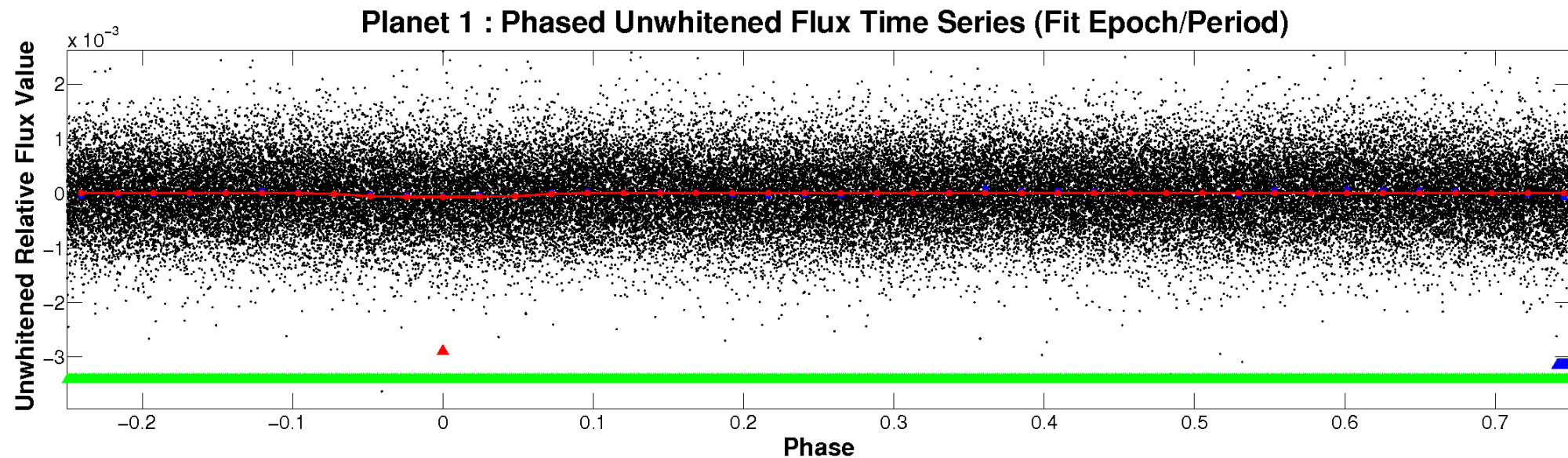


ALT Odd/Even

TCE 009526946-01

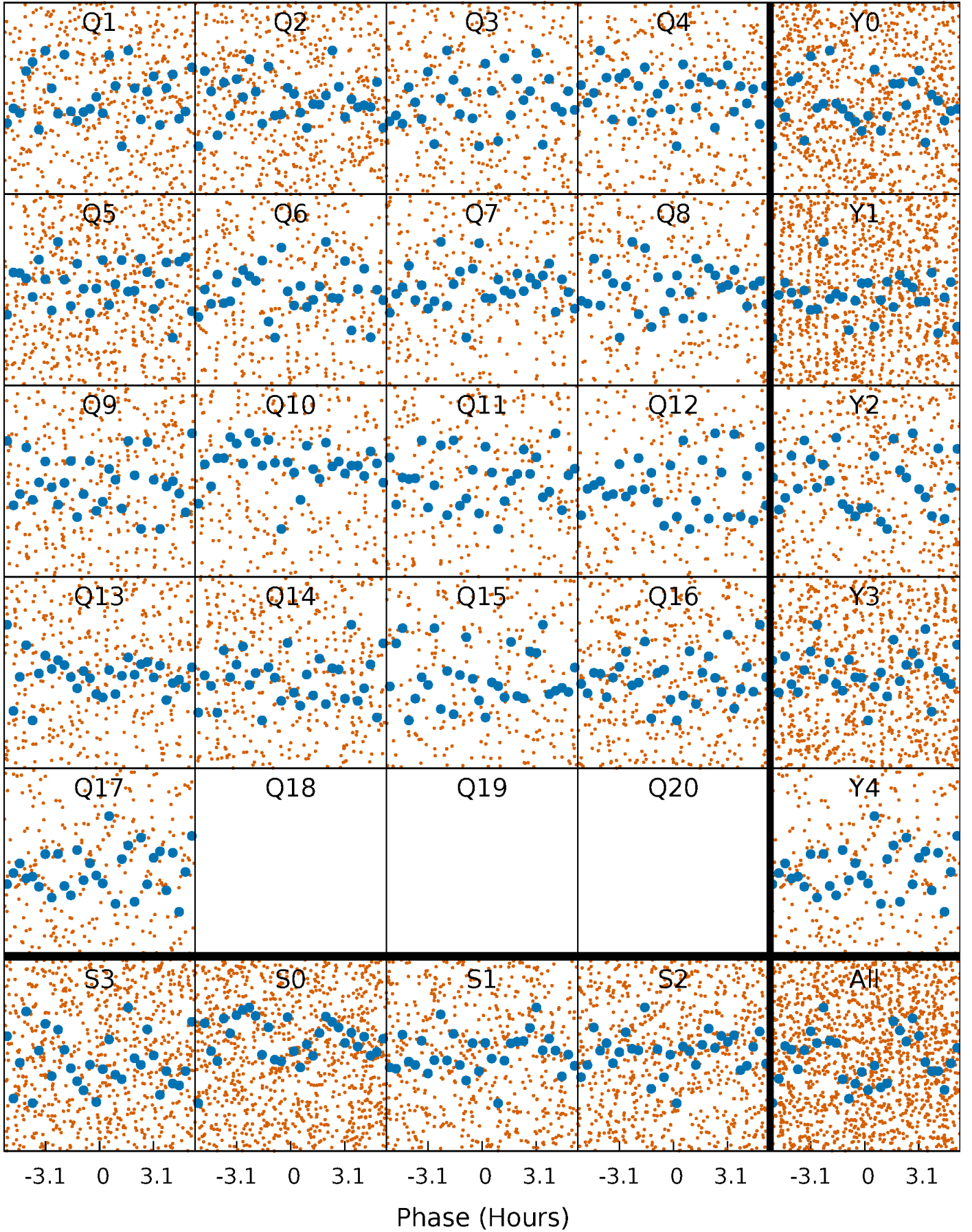


Non-Whitened Vs. Whitened Light Curve



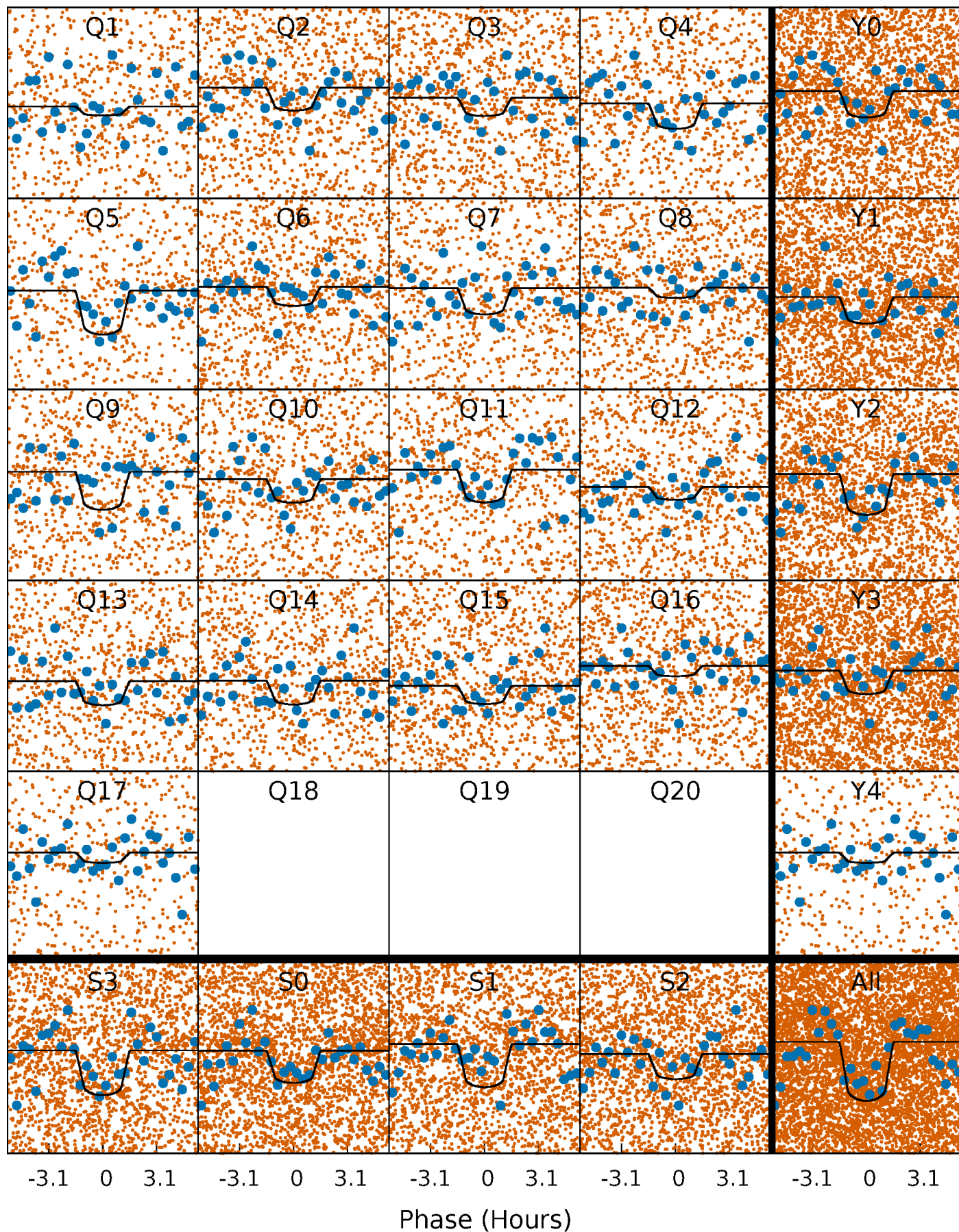
PDC Quarter-Phased Transit Curves

TCE 009526946-01 P= 0.849310 Days $T_0=132.024093$ (BKJD)



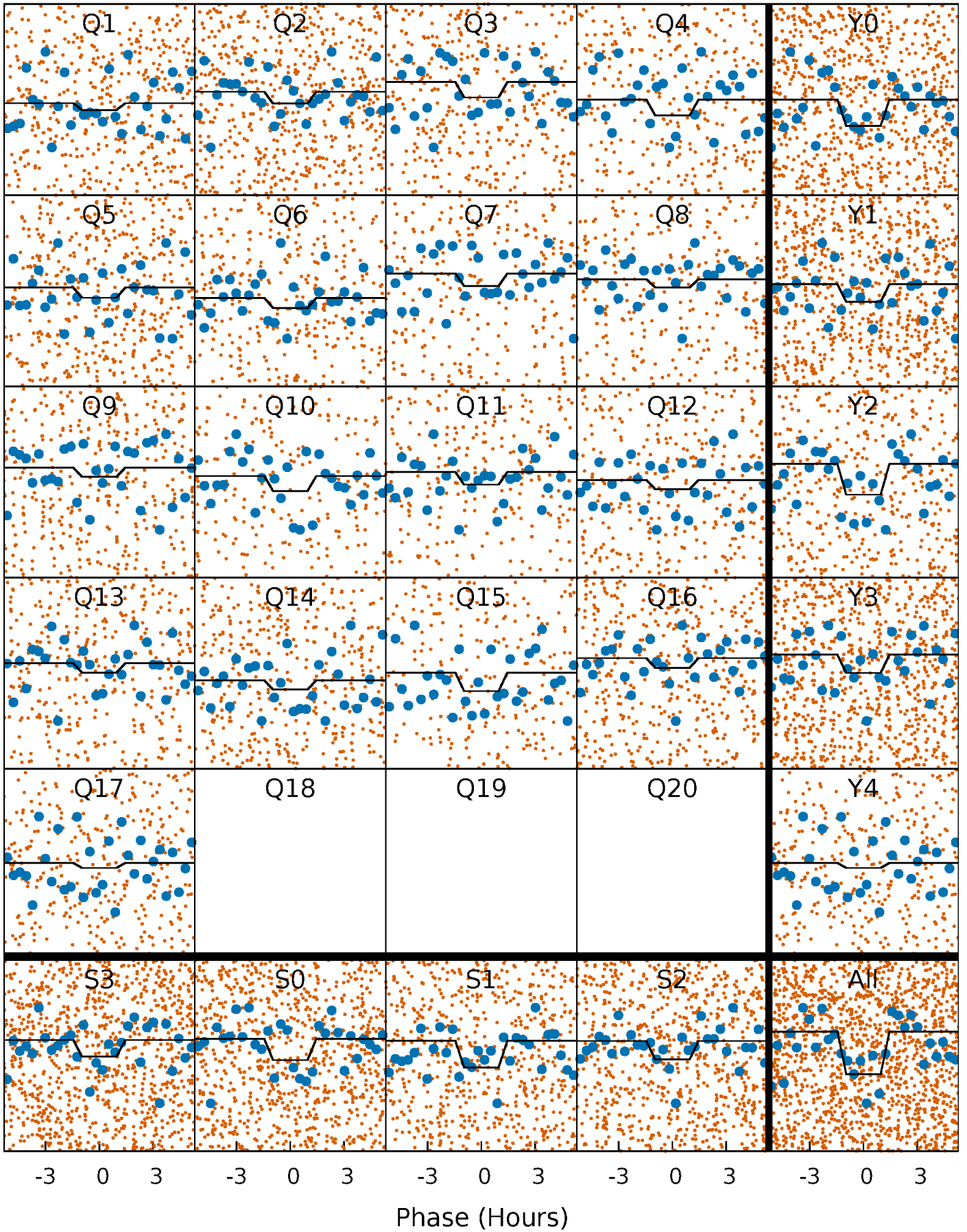
DV Quarter-Phased Transit Curves

TCE 009526946-01 P= 0.849310 Days $T_0=132.024093$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

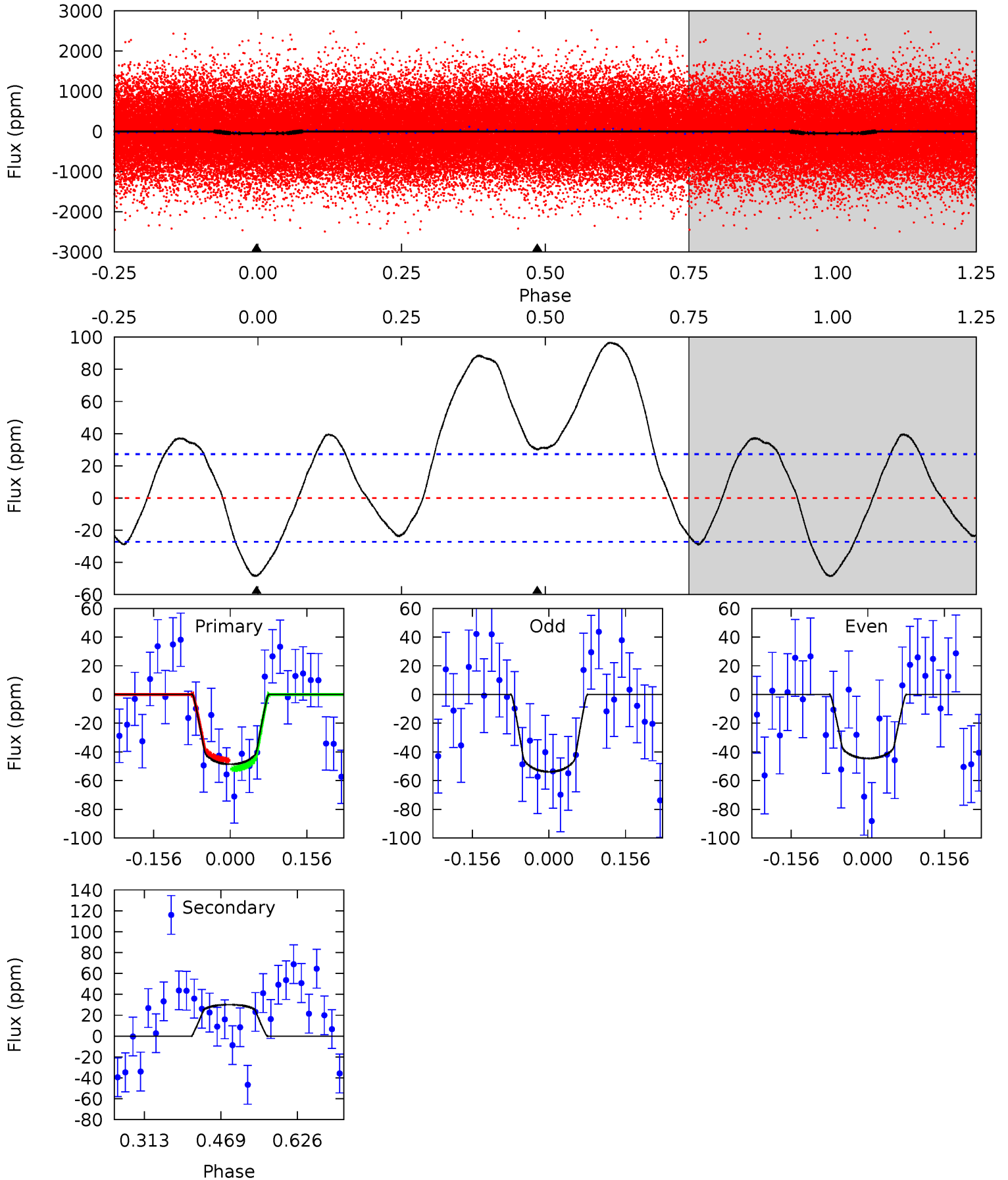
TCE 009526946-01 P= 0.849312 Days $T_0=132.025873$ (BKJD)



DV Model-Shift Uniqueness Test

009526946-01, P = 0.849310 Days, E = 131.174783 Days

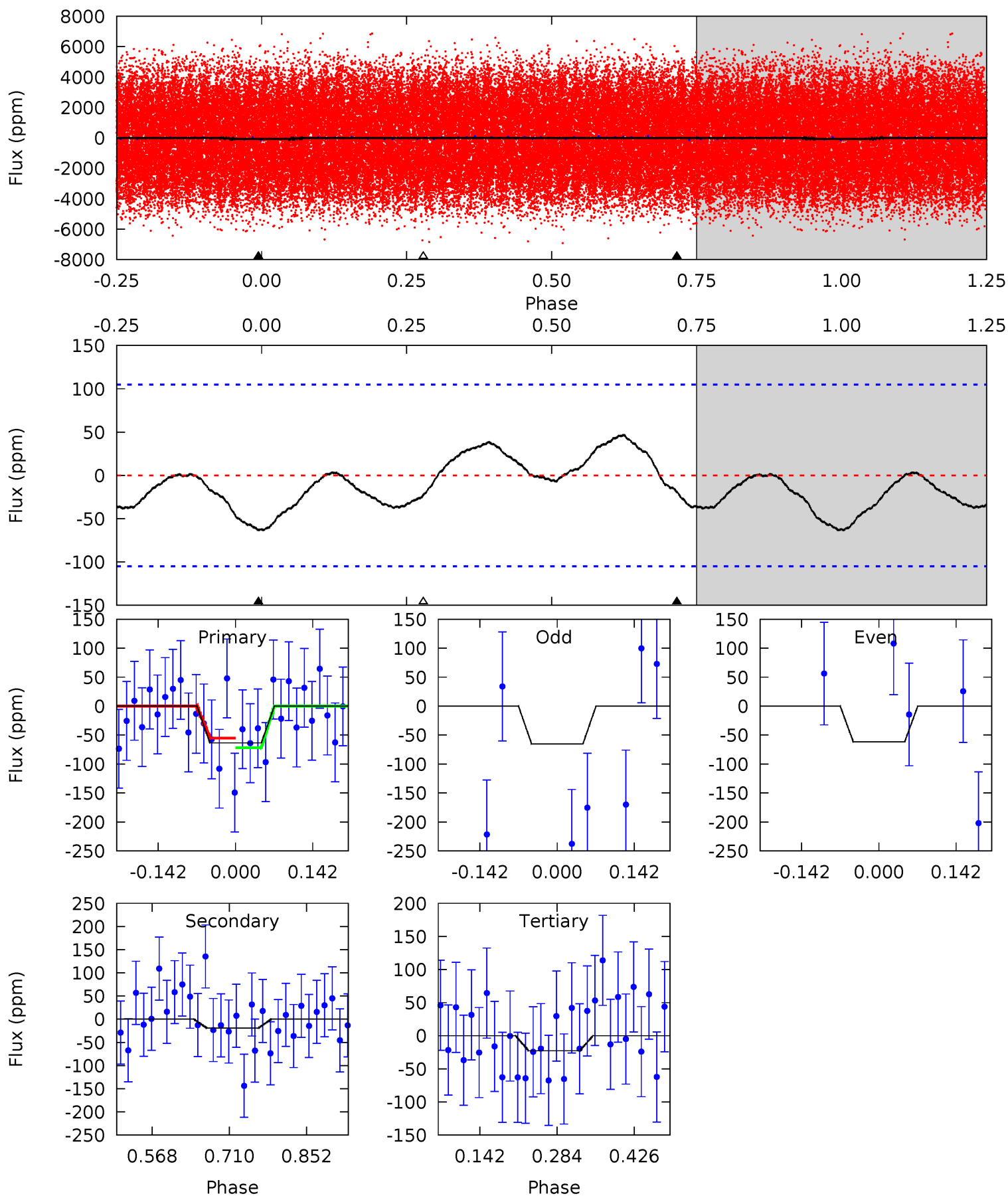
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.98	-4.94	0	0	4.47	1.42	4.70	7.98	7.98	-4.94	-4.94	0.76	1.11	0.67	0.49



Alt Model-Shift Uniqueness Test

009526946-01, P = 0.849312 Days, E = 131.176561 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.72	0.83	0.97	0	4.49	1.47	0.96	1.75	2.72	-0.14	0.83	0.07	0.92	0.42	0.36



Stellar Parameters For KIC 009526946

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8677^{+275}_{-336}	$4.021^{+0.360}_{-0.090}$	$-1.000^{+0.250}_{-0.300}$	$1.931^{+0.358}_{-0.717}$	$1.427^{+0.172}_{-0.210}$	$0.279^{+0.689}_{-0.095}$
	+3%/-4%	+9%/-2%	+25%/-30%	+19%/-37%	+12%/-15%	+247%/-34%
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 009526946-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	30 ± 6	$1.67^{+1.09}_{-0.88}$	5142^{+352}_{-523}	-6823^{+1222}_{-3857}	$-2.308^{+1.504}_{-7.910}$
Alt.	-19 ± 23	$1.63^{+0.97}_{-0.91}$	5131^{+349}_{-514}	5549^{+3917}_{-10310}	$1.363^{+6.618}_{-1.614}$

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

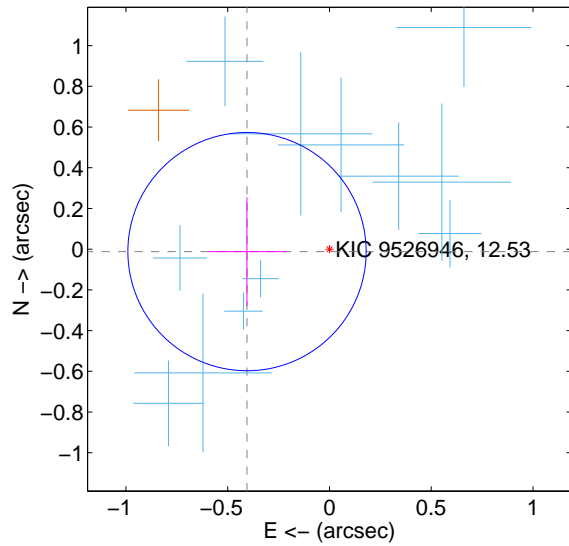
Supplemental centroid analysis for 009526946-01. Kepler magnitude: 12.53. Transit SNR 12.15

There are 13 quarters with good PRF difference image offsets

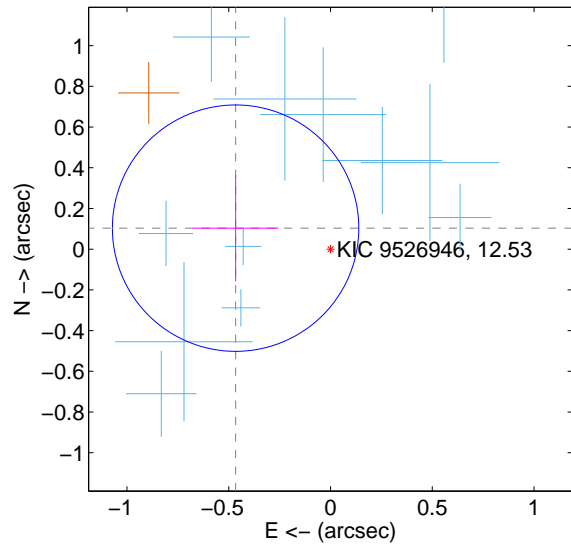
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.405 ± 0.195	2.08	0.405 ± 0.193	-0.012 ± 0.267
PRF-fit source offset from KIC position	0.478 ± 0.202	2.37	0.466 ± 0.210	0.103 ± 0.261
photometric centroid source offset	0.26 ± 0.18	1.50	-0.15 ± 0.18	0.21 ± 0.17

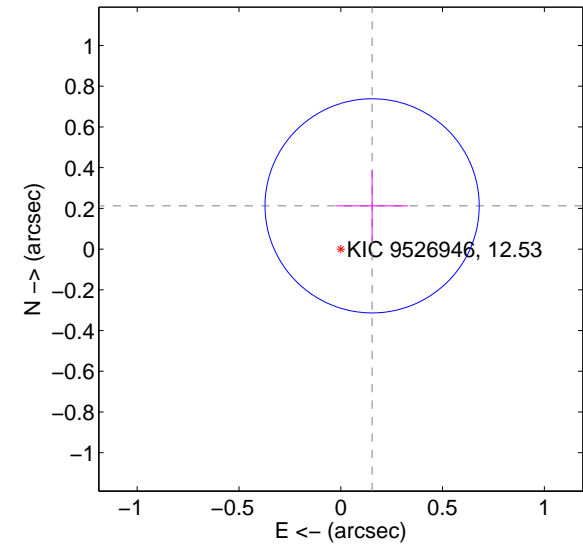
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

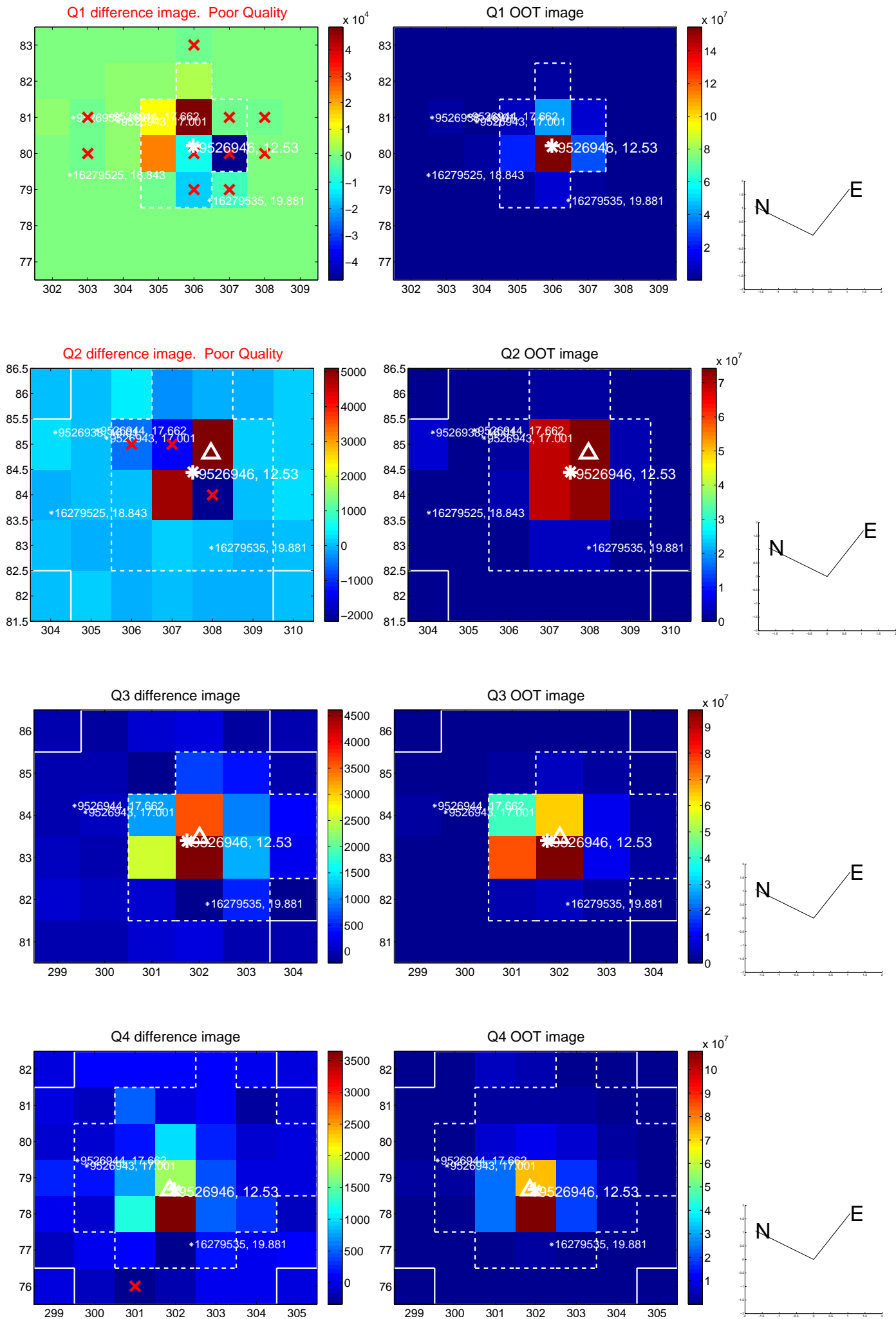


offset from photometric centroids

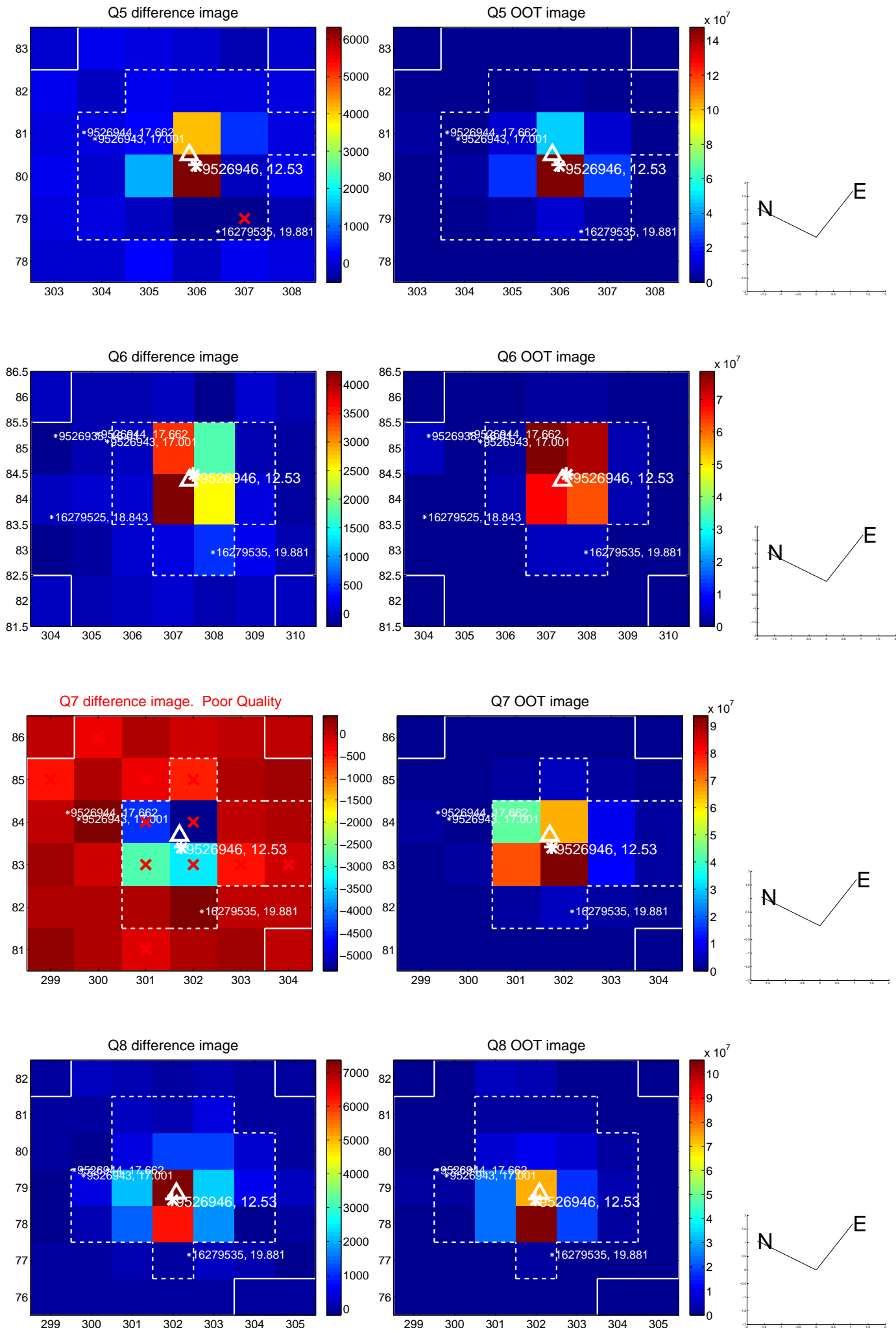


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

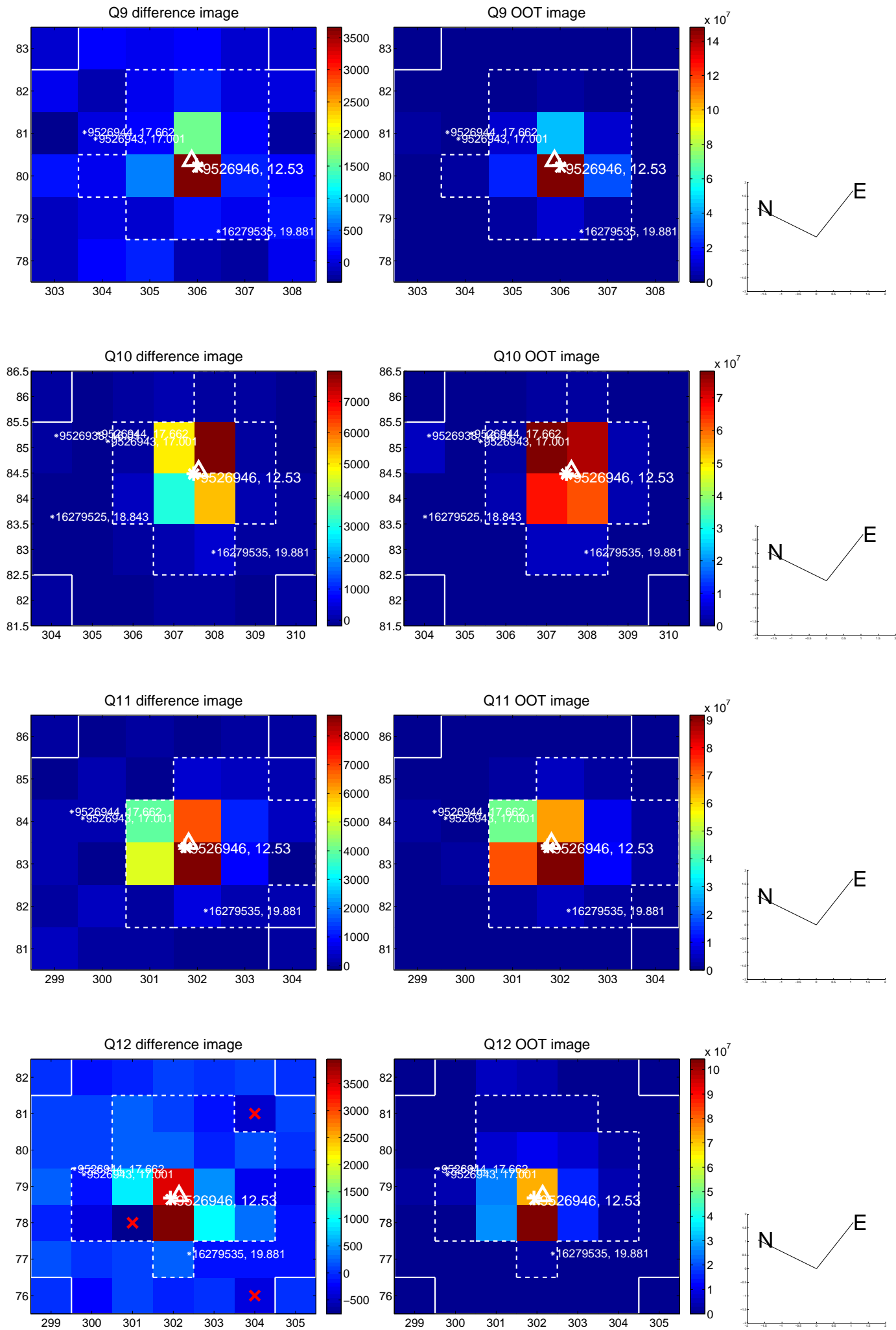
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



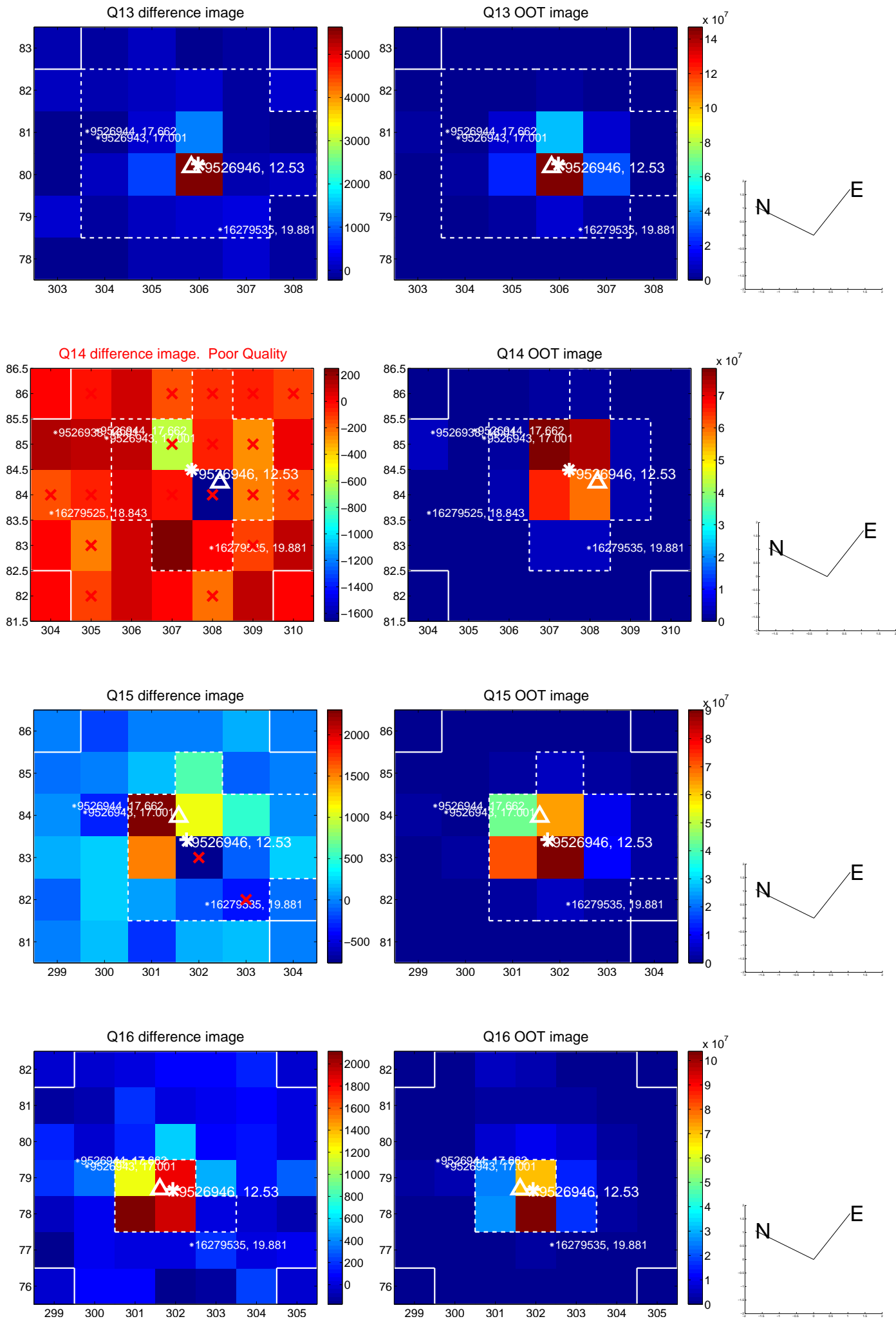
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



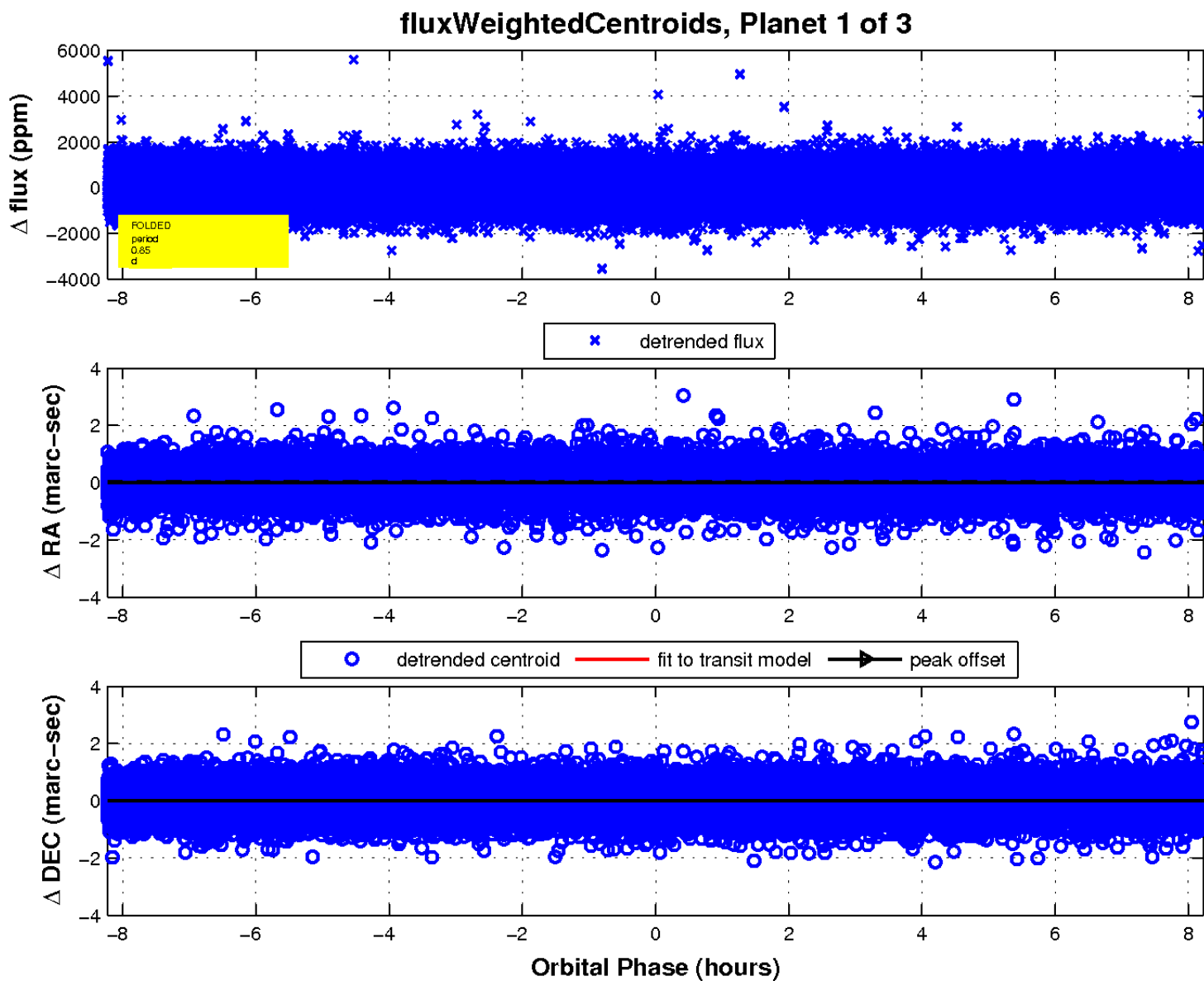
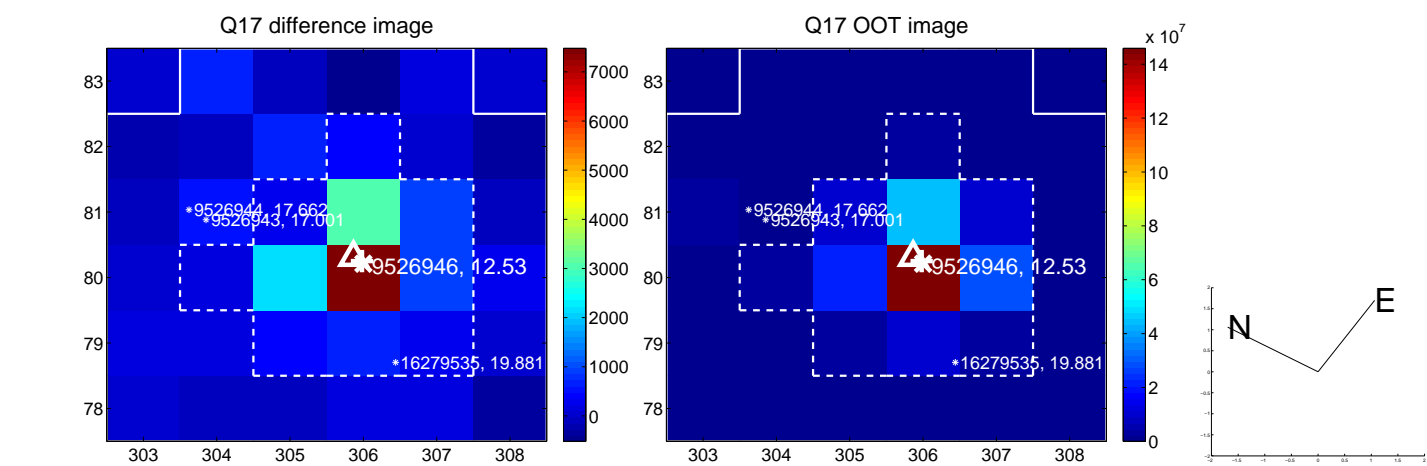
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

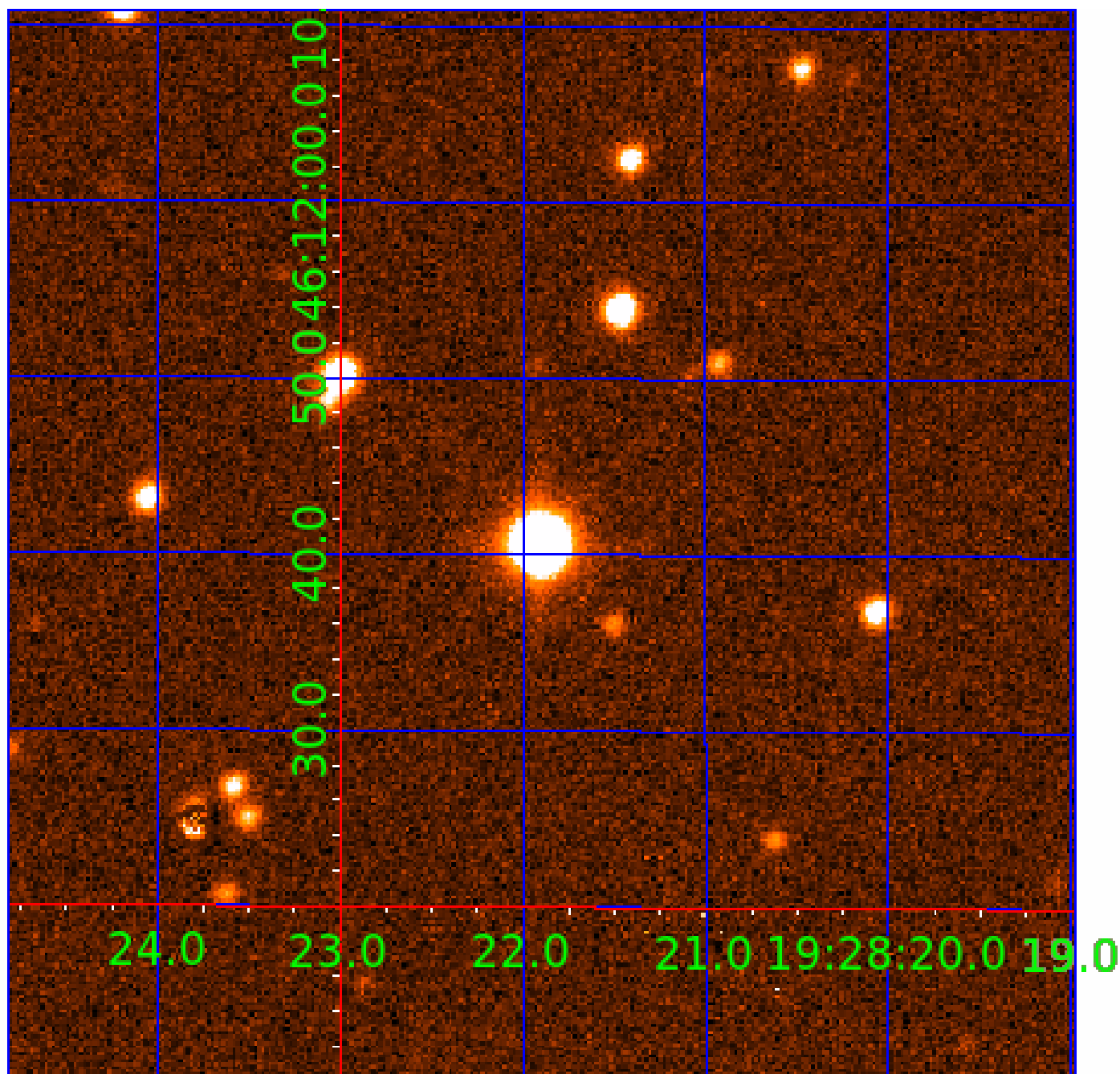


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009526946

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})
009526946-01	OBS	No	0.849310	132.024093	67.4	2.743	11.6	12.2	1.93	8677	1.82	48469.92
009526946-02	OBS	No	0.849306	131.811400	62.4	1.684	8.1	8.7	1.93	8677	1.76	48470.22
009526946-03	OBS	No	1.800493	131.725071	90.1	21.606	8.9	14.4	1.93	8677	2.18	17798.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009526946-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009526946-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD
009526946-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_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.

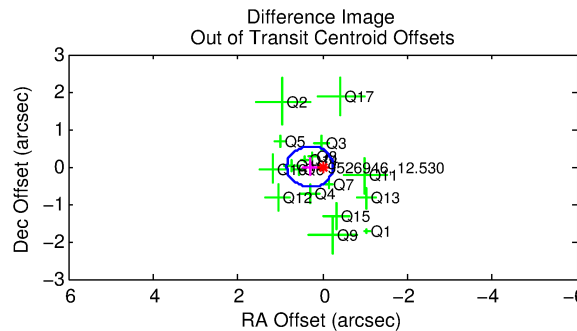
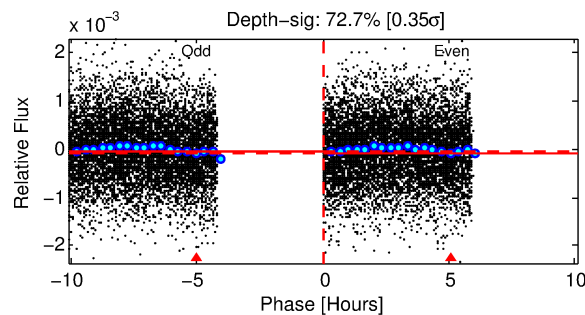
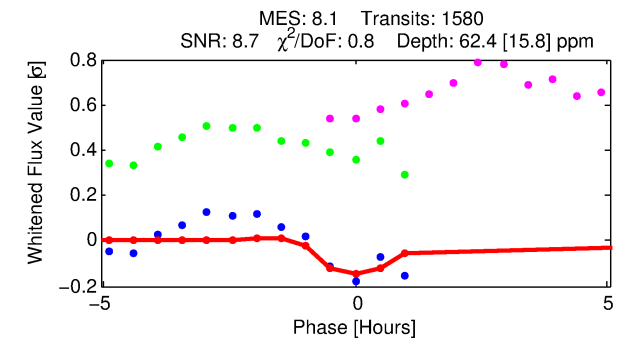
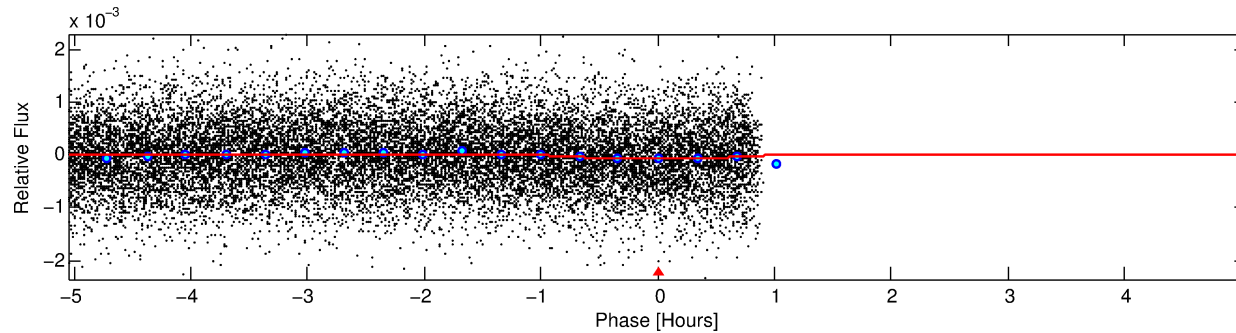
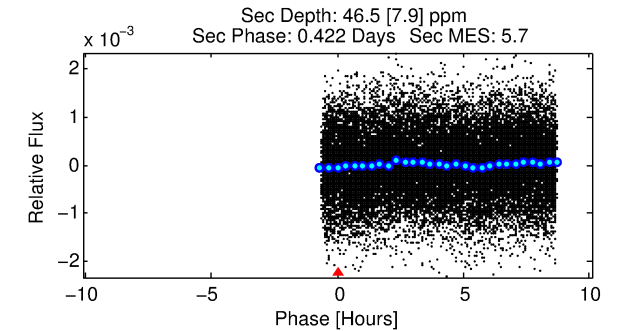
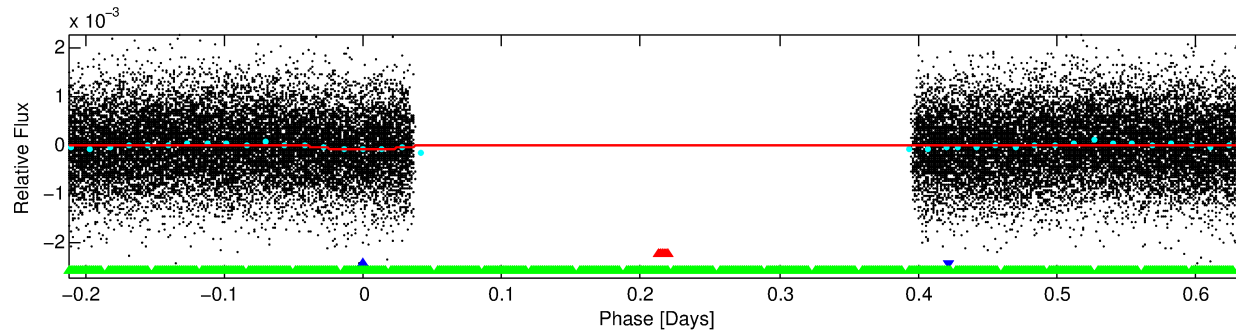
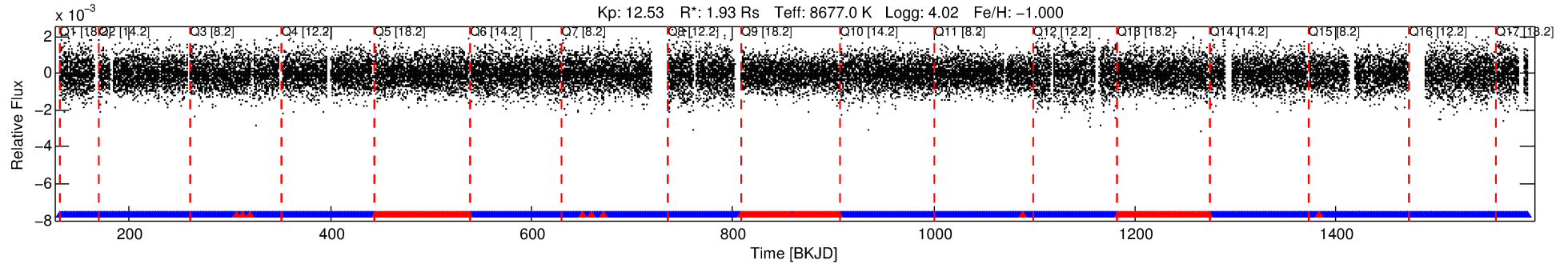
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009526946-02

No Significant Match Found

DV One-Page Summary

KIC: 9526946 Candidate: 2 of 3 Period: 0.849 d



DV Fit Results:

Period = 0.84931 [0.00003] d
Epoch = 131.8114 [0.0036] BKJD
Rp/R* = 0.0084 [0.0063]
a/R* = 2.03 [7.60]
b = 0.89 [1.13]
Seff = 48470.23 [30295.13]
Teff = 3784 [591] K
Rp = 1.76 [1.48] Re
a = 0.0198 [0.0073] AU
Ag = 3.21 [5.23] [0.42σ]
Teffp = 7832 [2976] K [1.33σ]

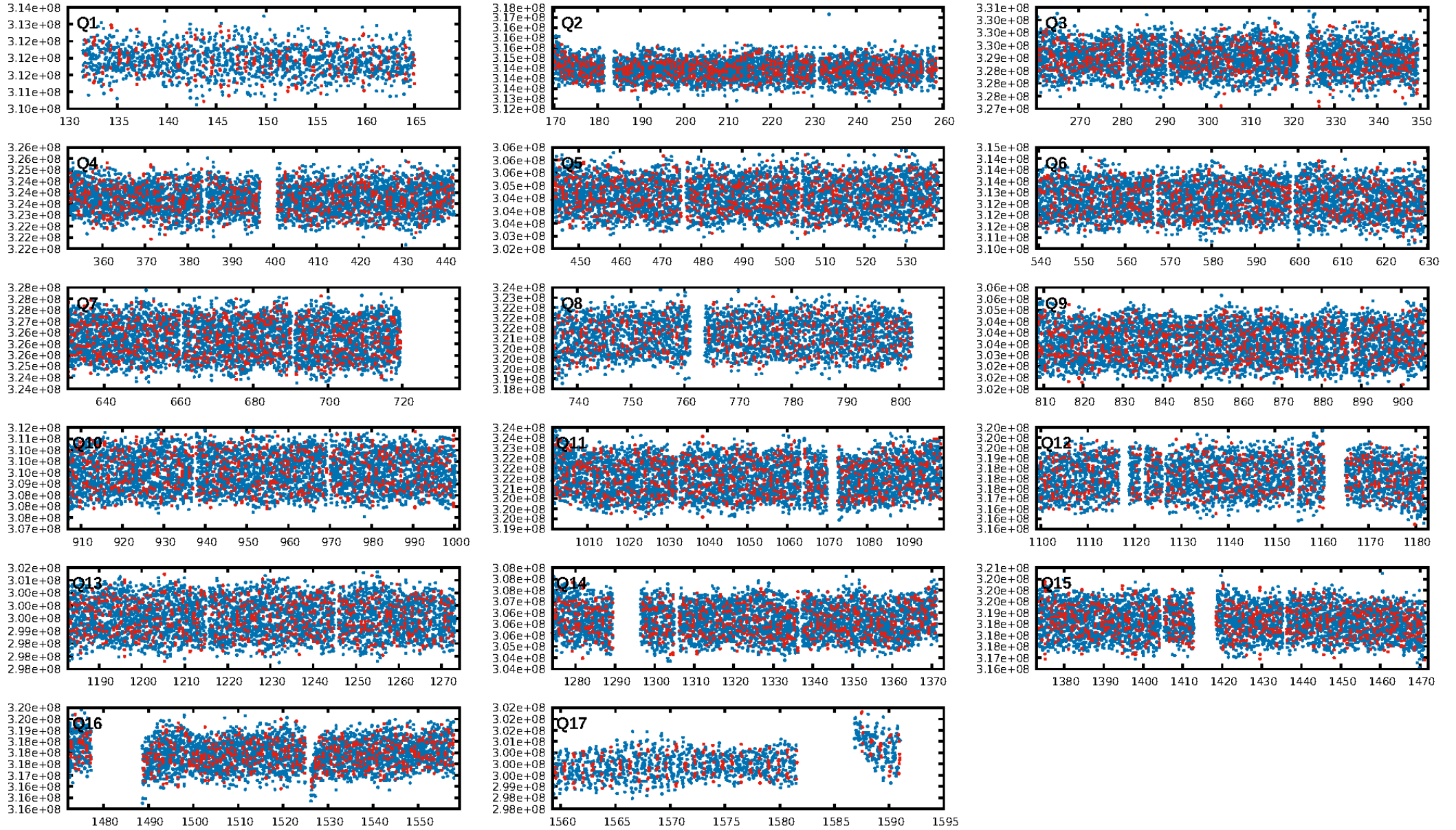
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.79 [1197/1508]
GhostDiagnostic-chr: 2.06
Centroid-sig: 0.0%
Centroid-so: 0.396 arcsec [1.67σ]
OotOffset-rm: 0.295 arcsec [1.62σ]
KicOffset-rm: 0.335 arcsec [1.74σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 0.00 [0/17]

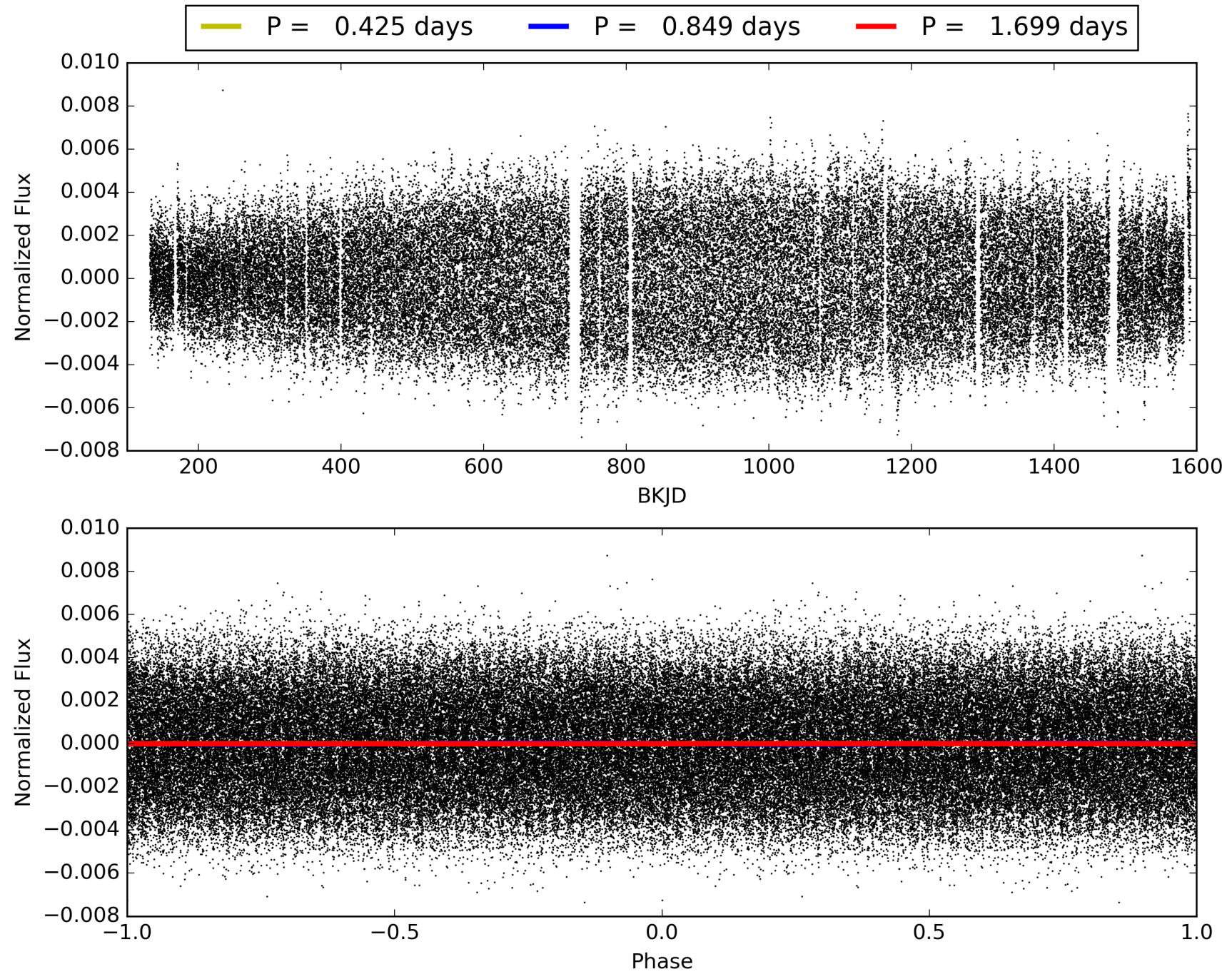
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:31:04 Z

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

TCE 009526946-02, PDC Light Curves

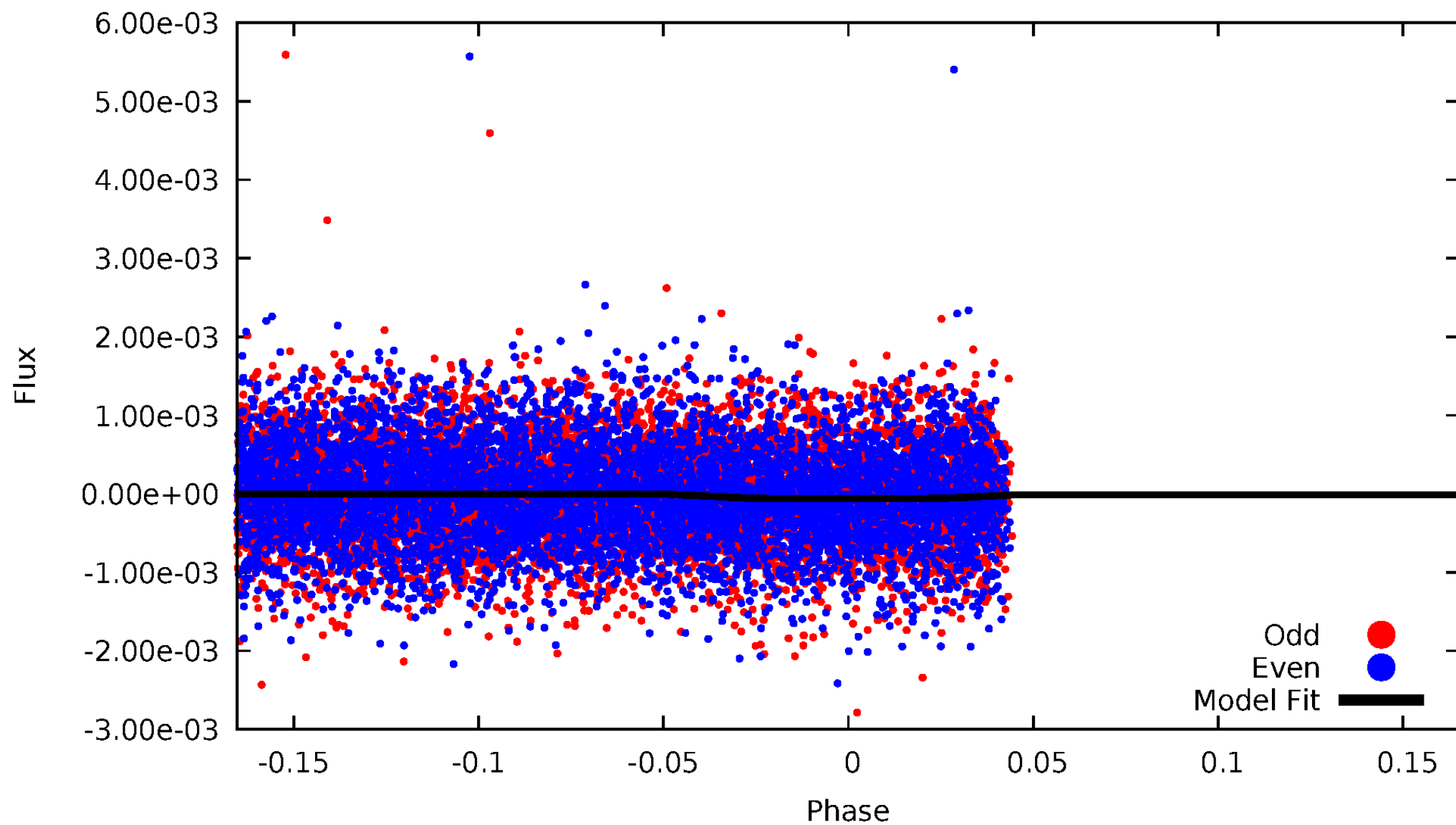


TCE 009526946-02



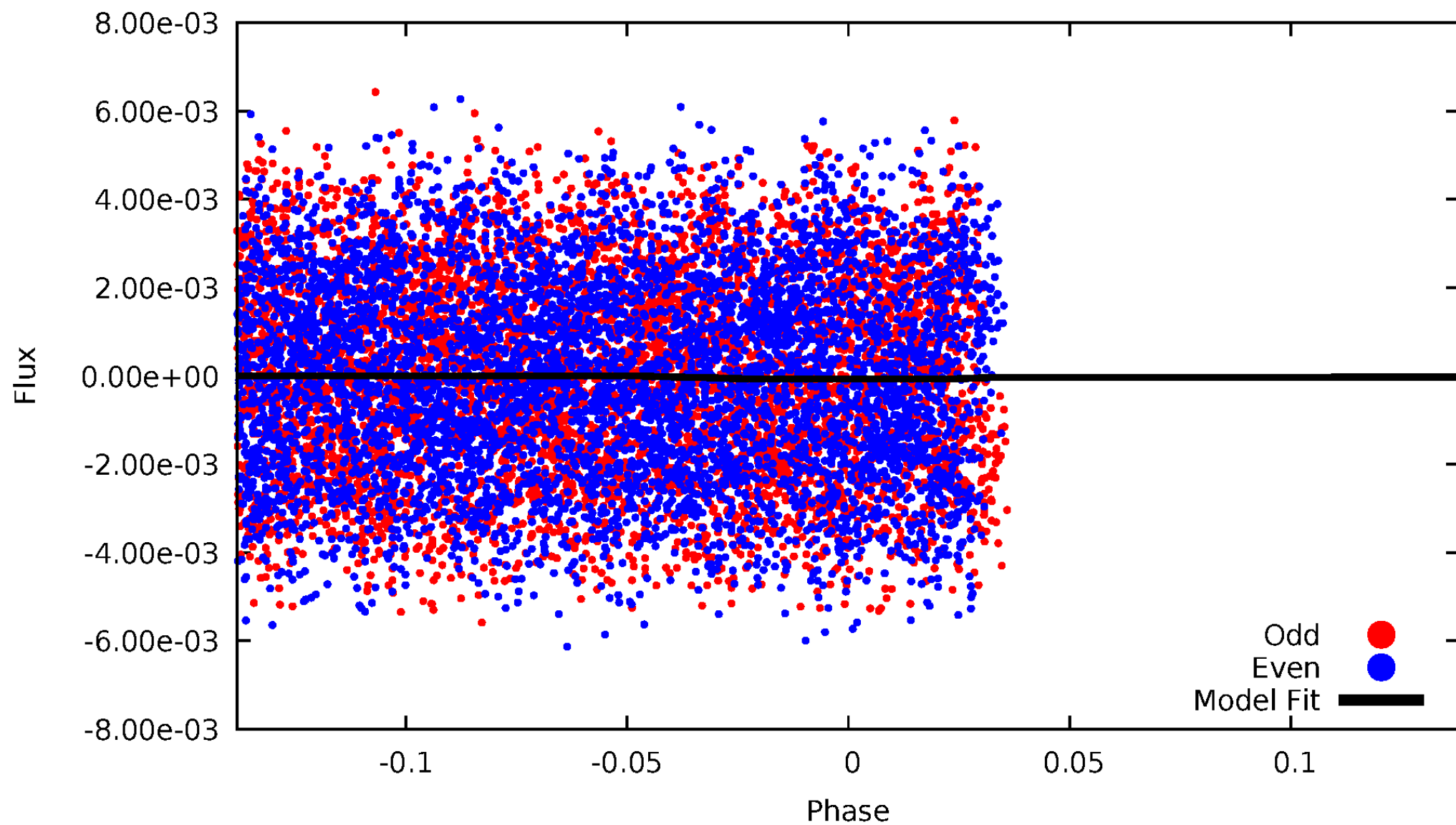
DV Odd/Even

TCE 009526946-02



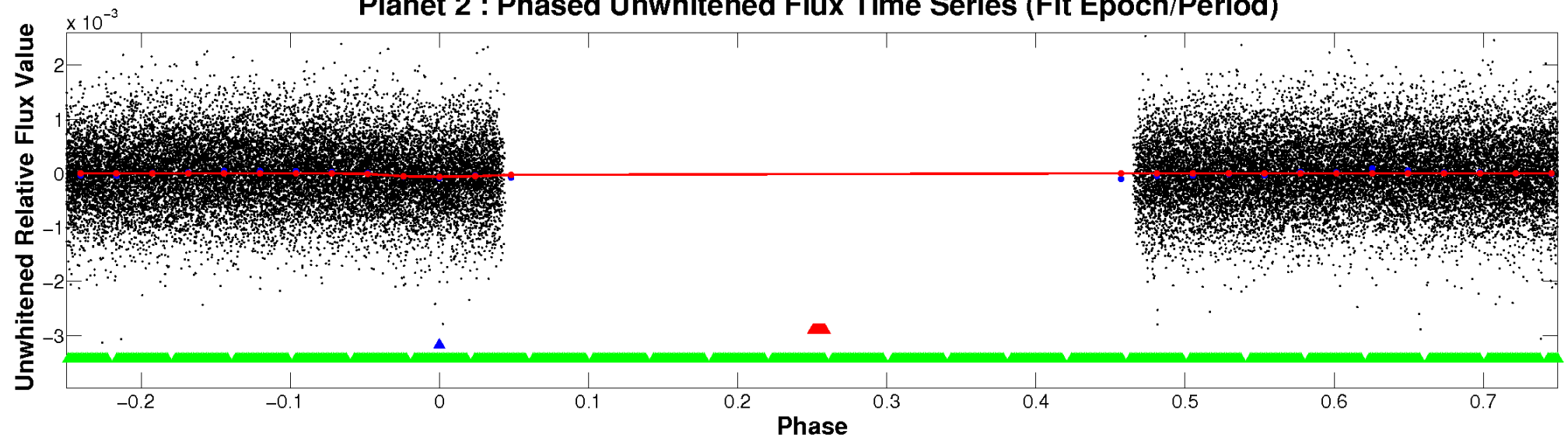
ALT Odd/Even

TCE 009526946-02

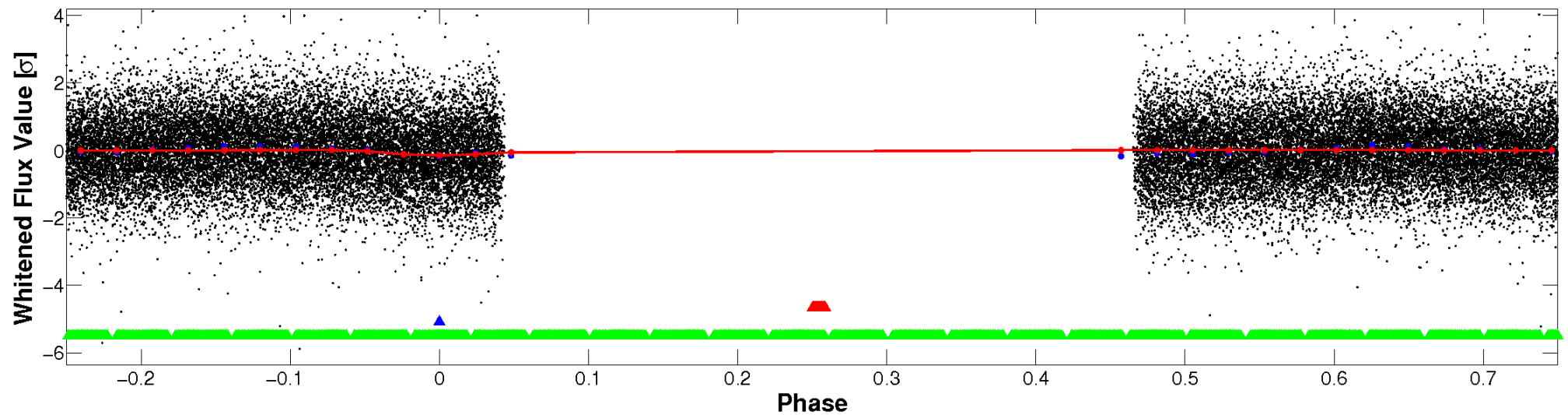


Non-Whitened Vs. Whitened Light Curve

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

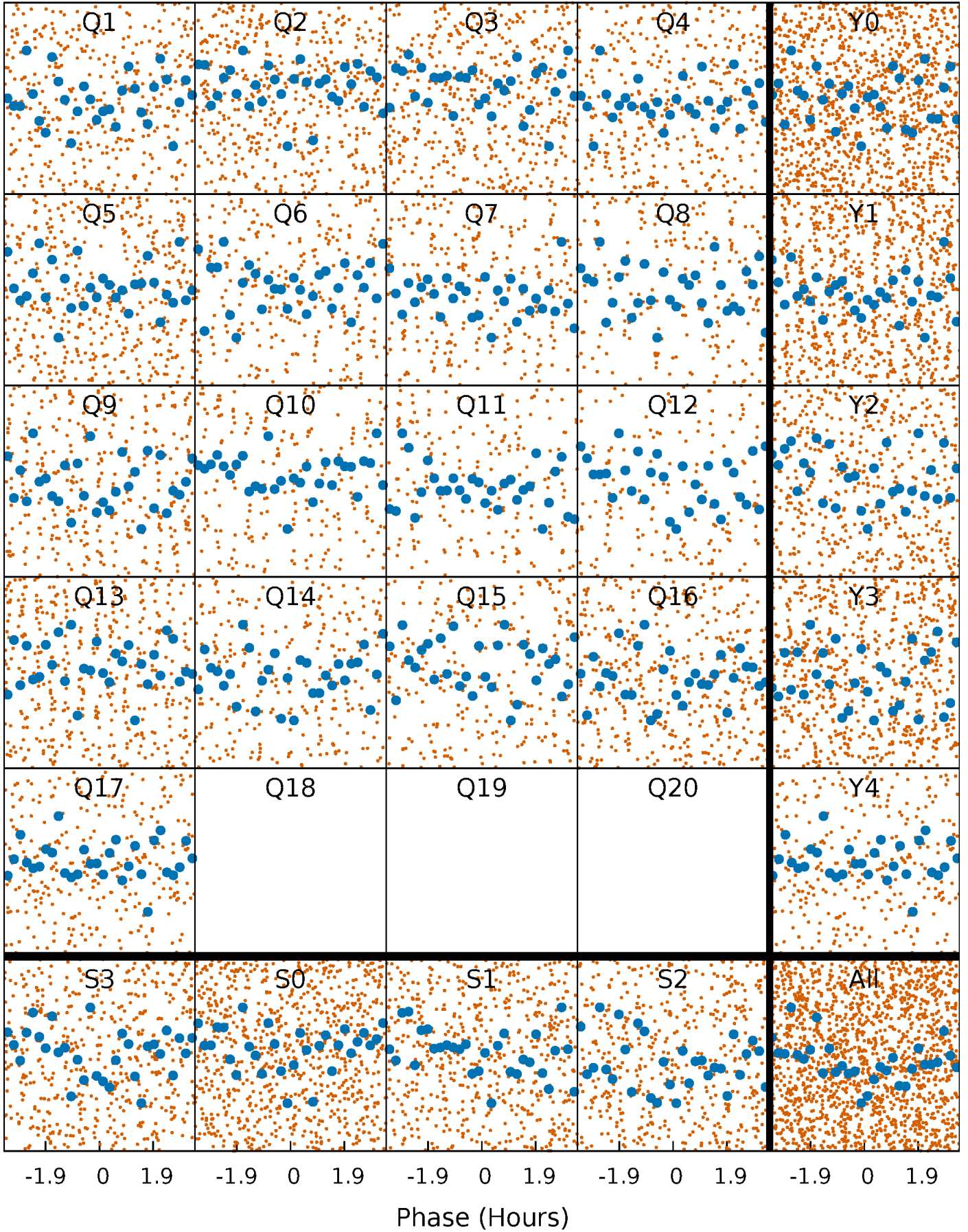


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



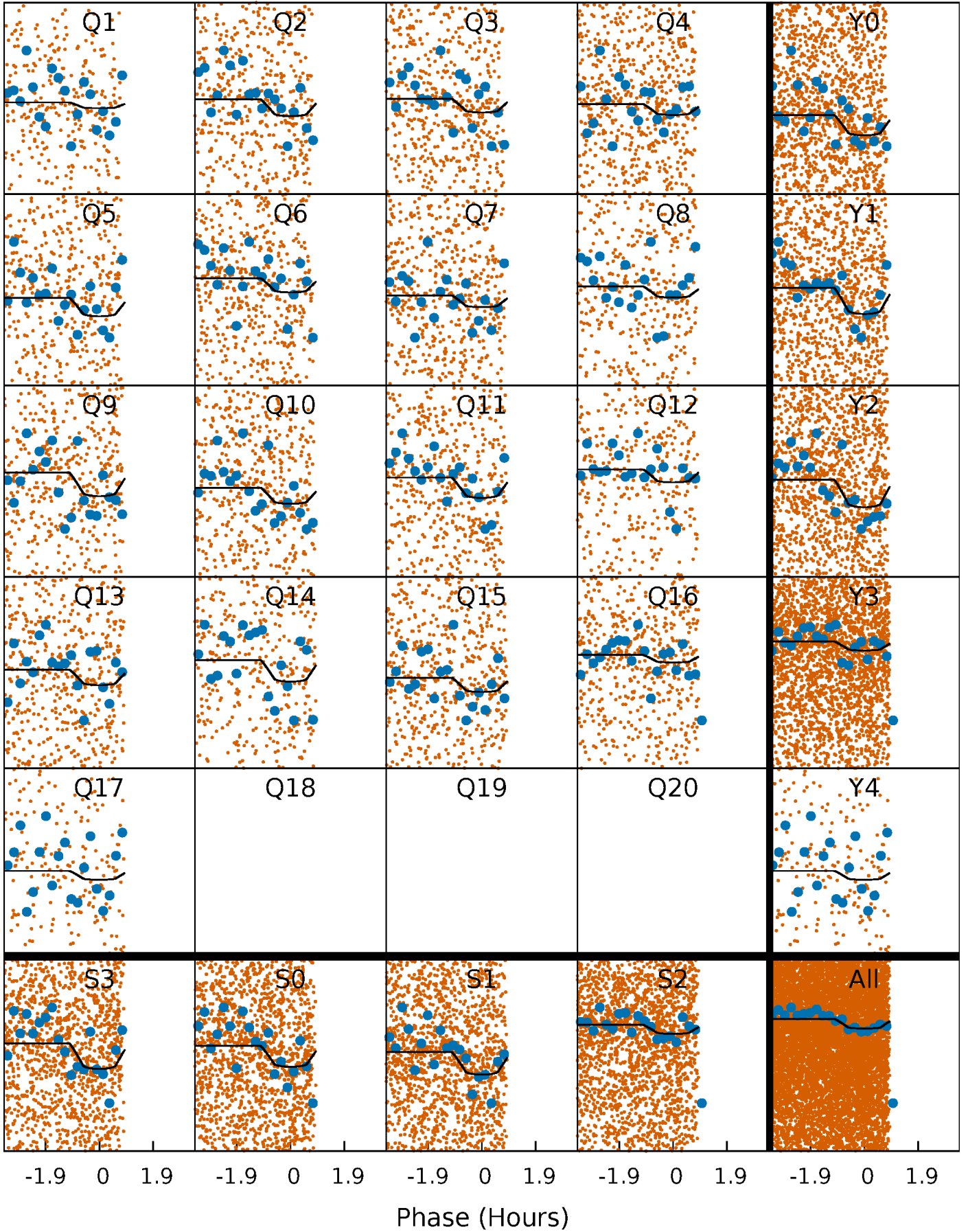
PDC Quarter-Phased Transit Curves

TCE 009526946-02 $P = 0.849306$ Days $T_0 = 131.811400$ (BKJD)



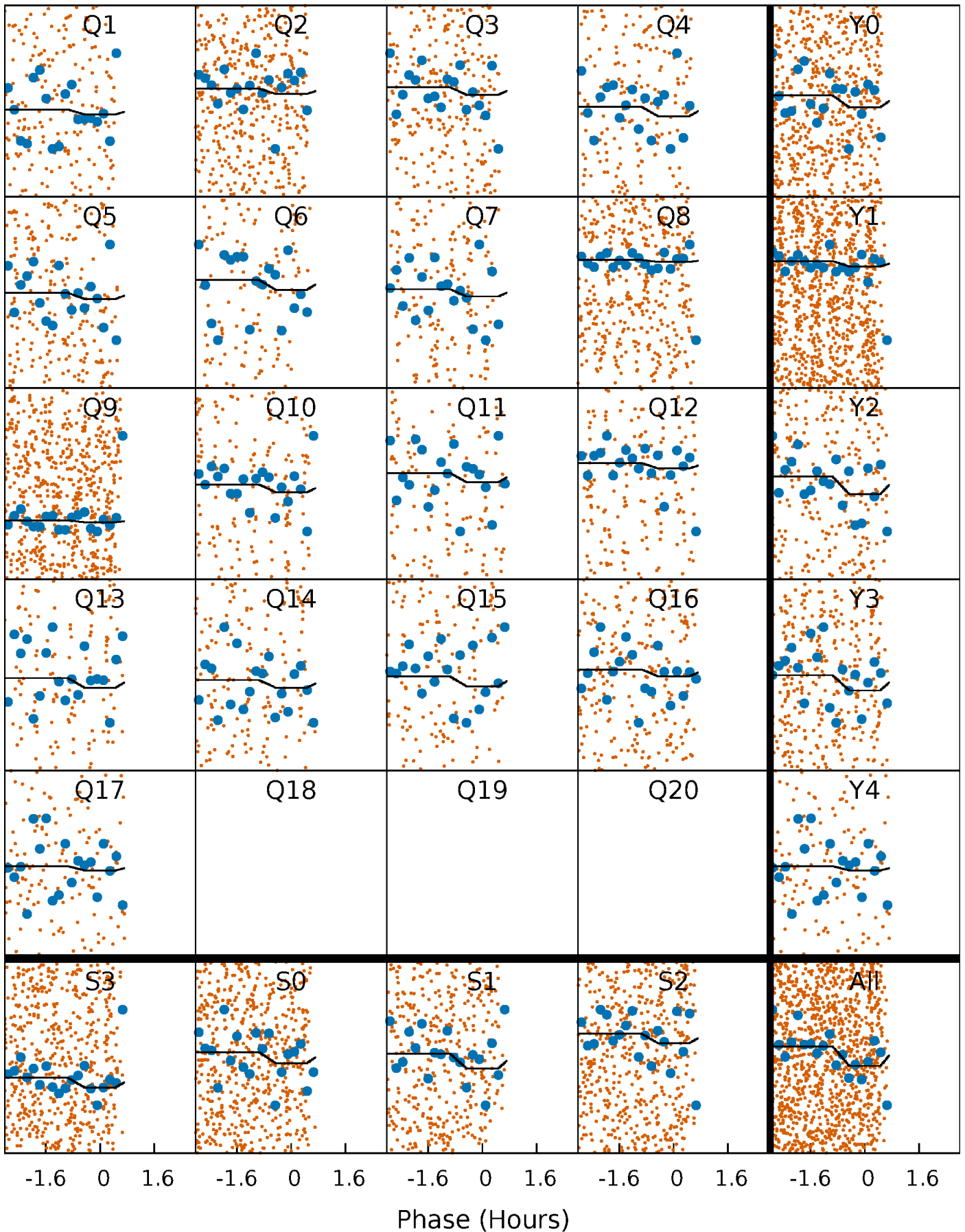
DV Quarter-Phased Transit Curves

TCE 009526946-02 P= 0.849306 Days $T_0=131.811400$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

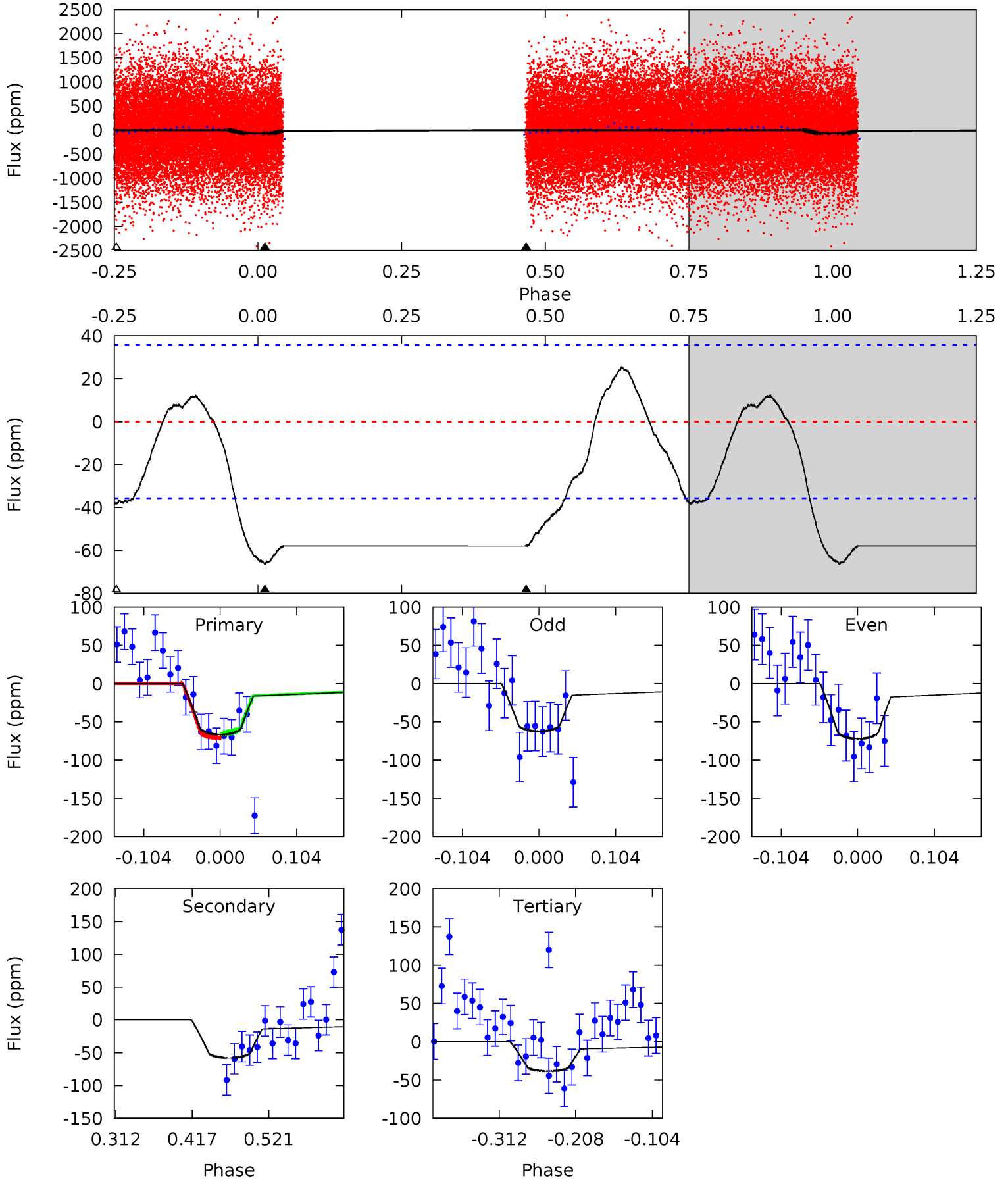
TCE 009526946-02 P= 0.849304 Days $T_0=131.823228$ (BKJD)



DV Model-Shift Uniqueness Test

009526946-02, P = 0.849306 Days, E = 130.962094 Days

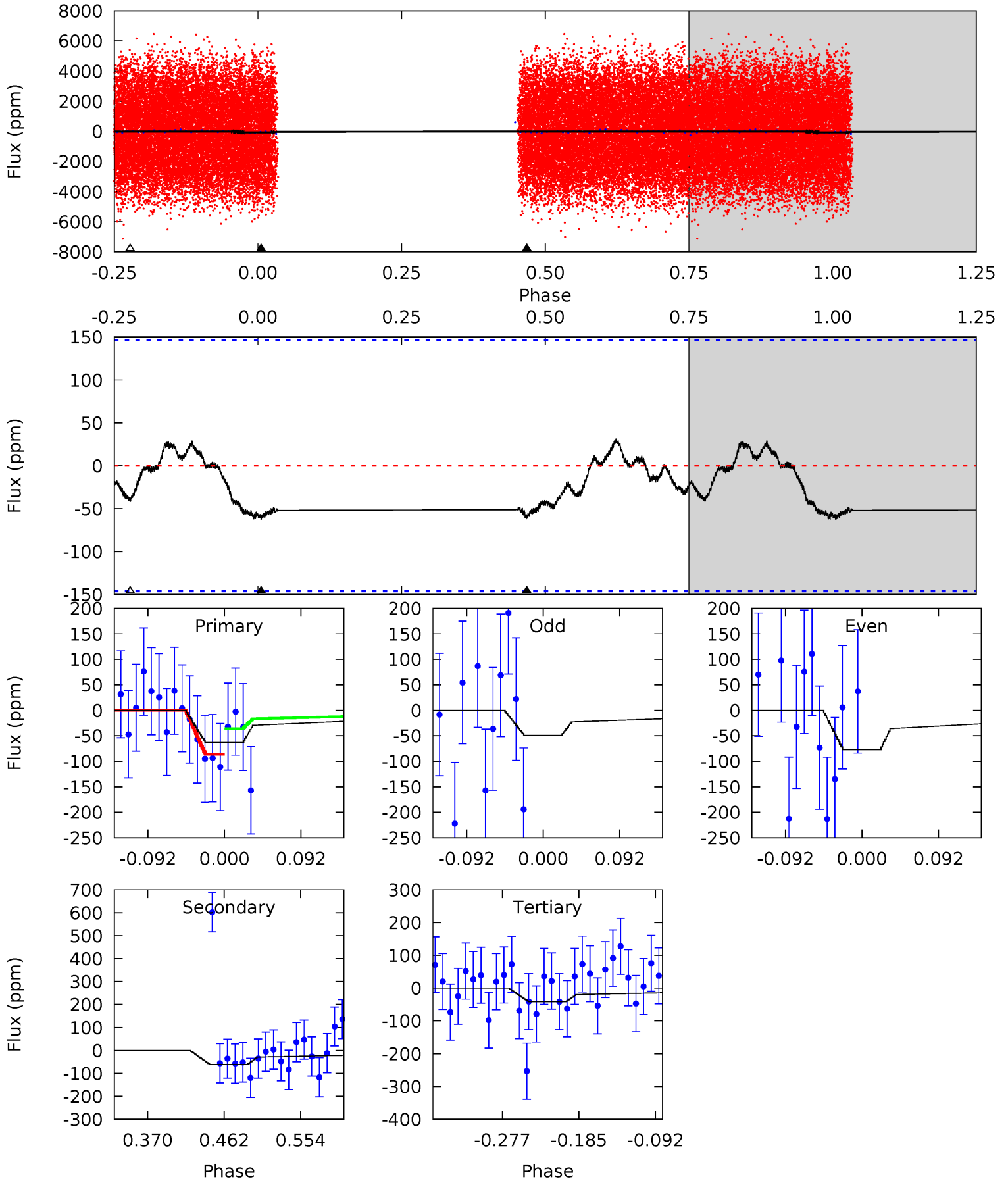
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.50	7.41	4.92	0	4.56	1.63	2.48	3.59	8.50	2.49	7.41	0.62	1.15	0.28	0.31



Alt Model-Shift Uniqueness Test

009526946-02, P = 0.849304 Days, E = 130.973924 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.97	1.93	1.30	0	4.58	1.68	0.57	0.67	1.97	0.63	1.93	0.44	1.05	0.33	0.77



Stellar Parameters For KIC 009526946

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8677^{+275}_{-336}	$4.021^{+0.360}_{-0.090}$	$-1.000^{+0.250}_{-0.300}$	$1.931^{+0.358}_{-0.717}$	$1.427^{+0.172}_{-0.210}$	$0.279^{+0.689}_{-0.095}$
	+3%/-4%	+9%/-2%	+25%/-30%	+19%/-37%	+12%/-15%	+247%/-34%
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 009526946-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-58 ± 8	$1.73^{+1.37}_{-1.06}$	5130^{+366}_{-516}	7671^{+8239}_{-2214}	$4.224^{+24.000}_{-2.908}$
Alt.	-62 ± 32	$1.63^{+1.26}_{-0.95}$	5162^{+338}_{-512}	7769^{+7592}_{-2601}	$4.409^{+21.296}_{-3.321}$

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 $A_{obs} \gg 1.0$

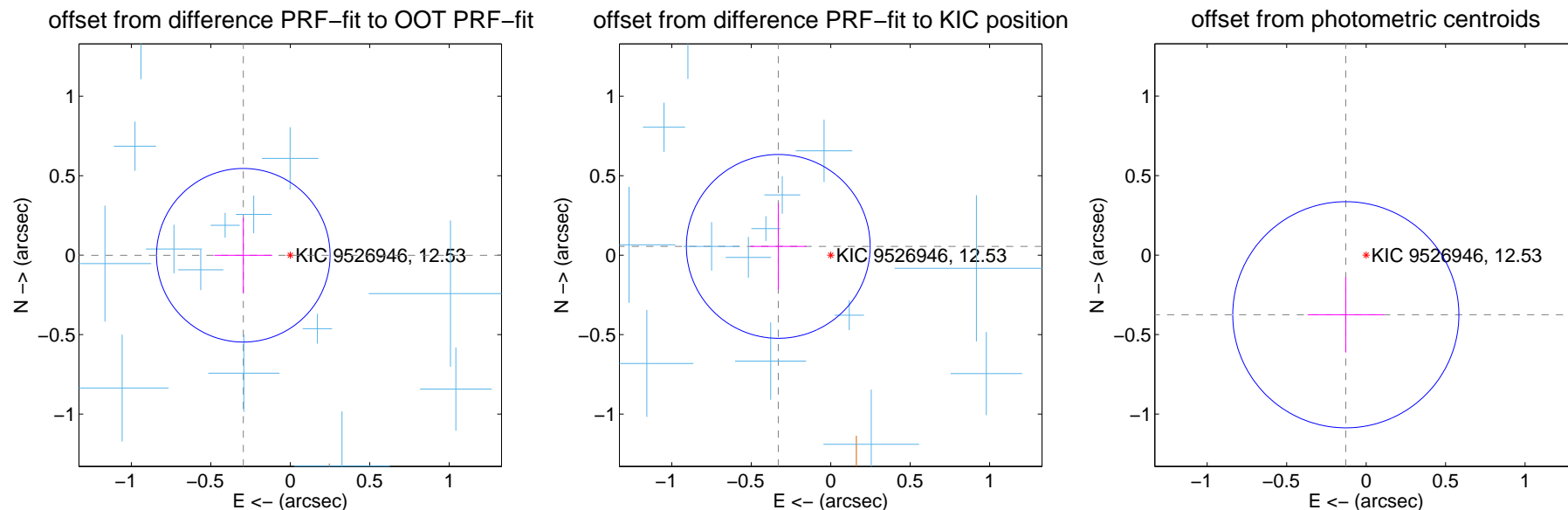
DV Centroid Data

Supplemental centroid analysis for 009526946-02. Kepler magnitude: 12.53. Transit SNR 8.71

There are 16 quarters with good PRF difference image offsets

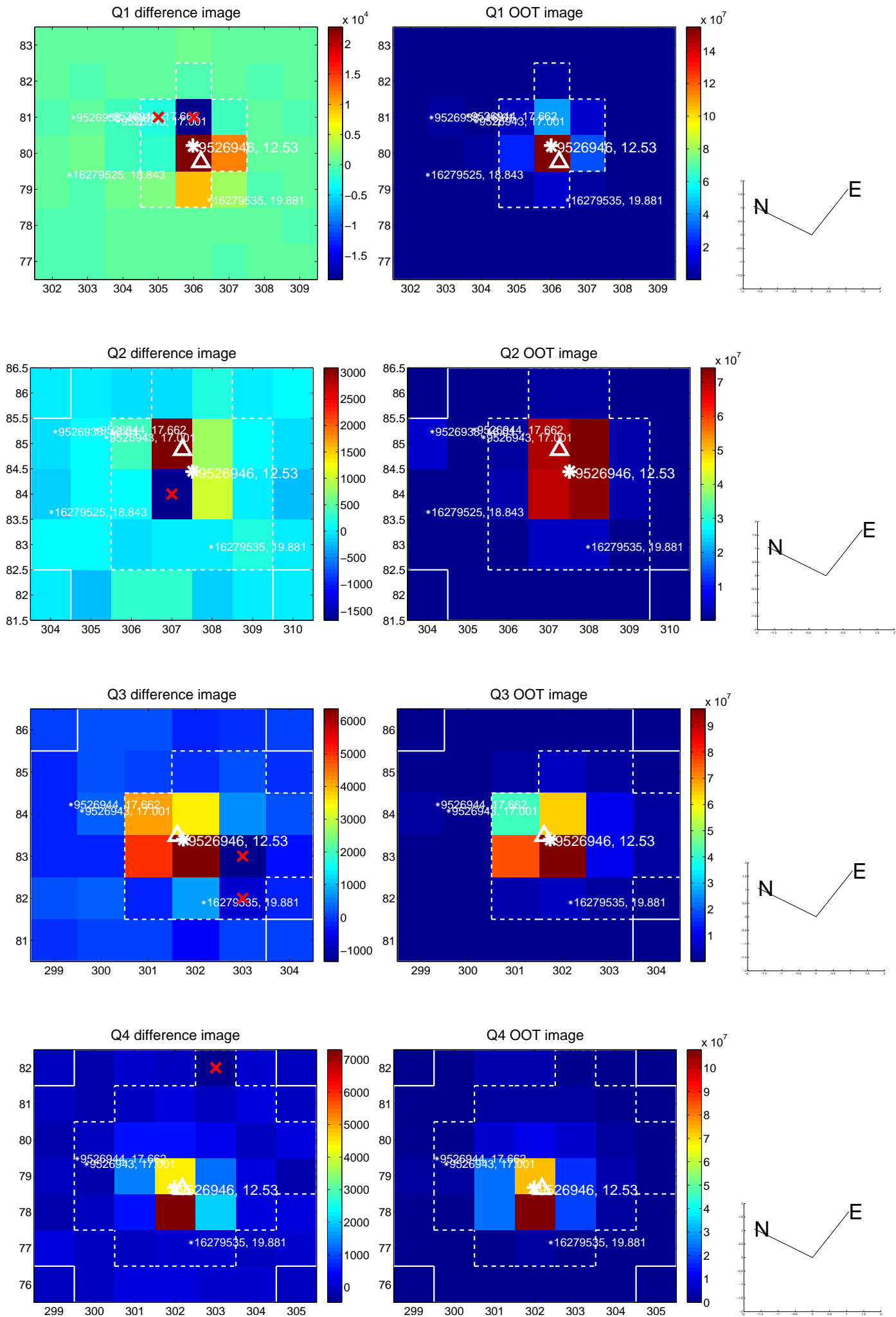
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.295 ± 0.182	1.62	0.295 ± 0.182	-0.001 ± 0.237
PRF-fit source offset from KIC position	0.335 ± 0.193	1.74	0.330 ± 0.176	0.055 ± 0.271
photometric centroid source offset	0.40 ± 0.24	1.67	0.13 ± 0.24	-0.38 ± 0.24

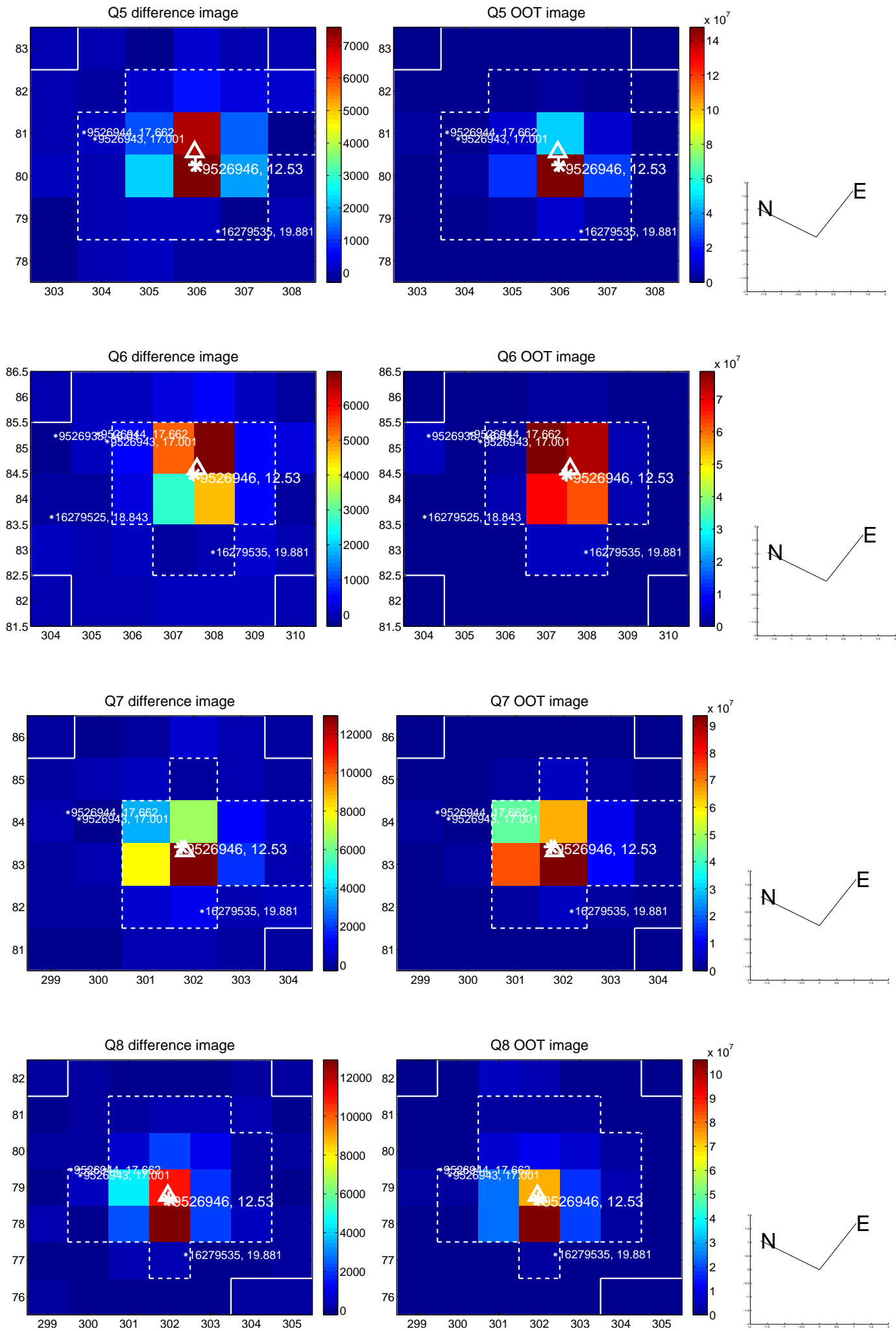


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

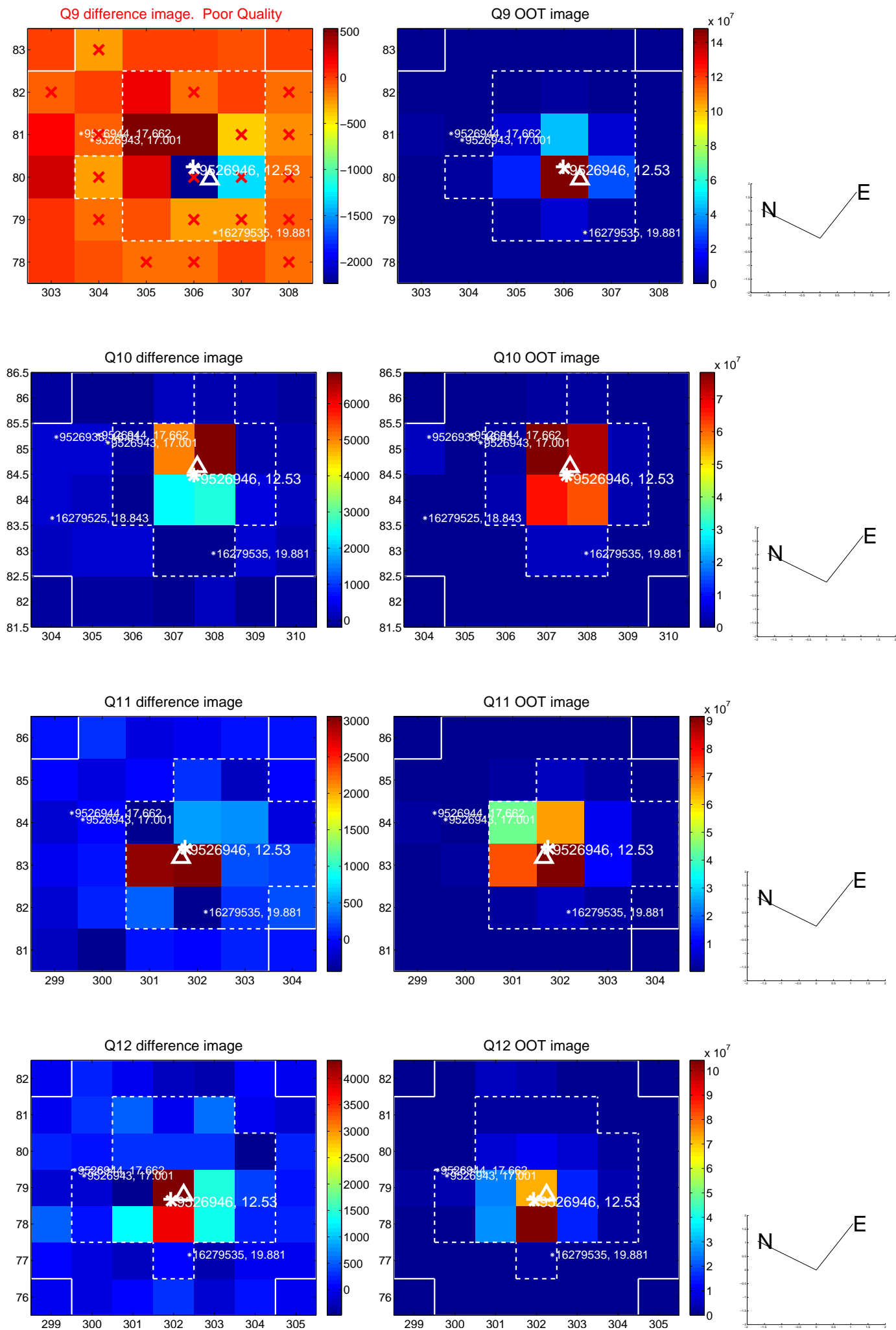
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



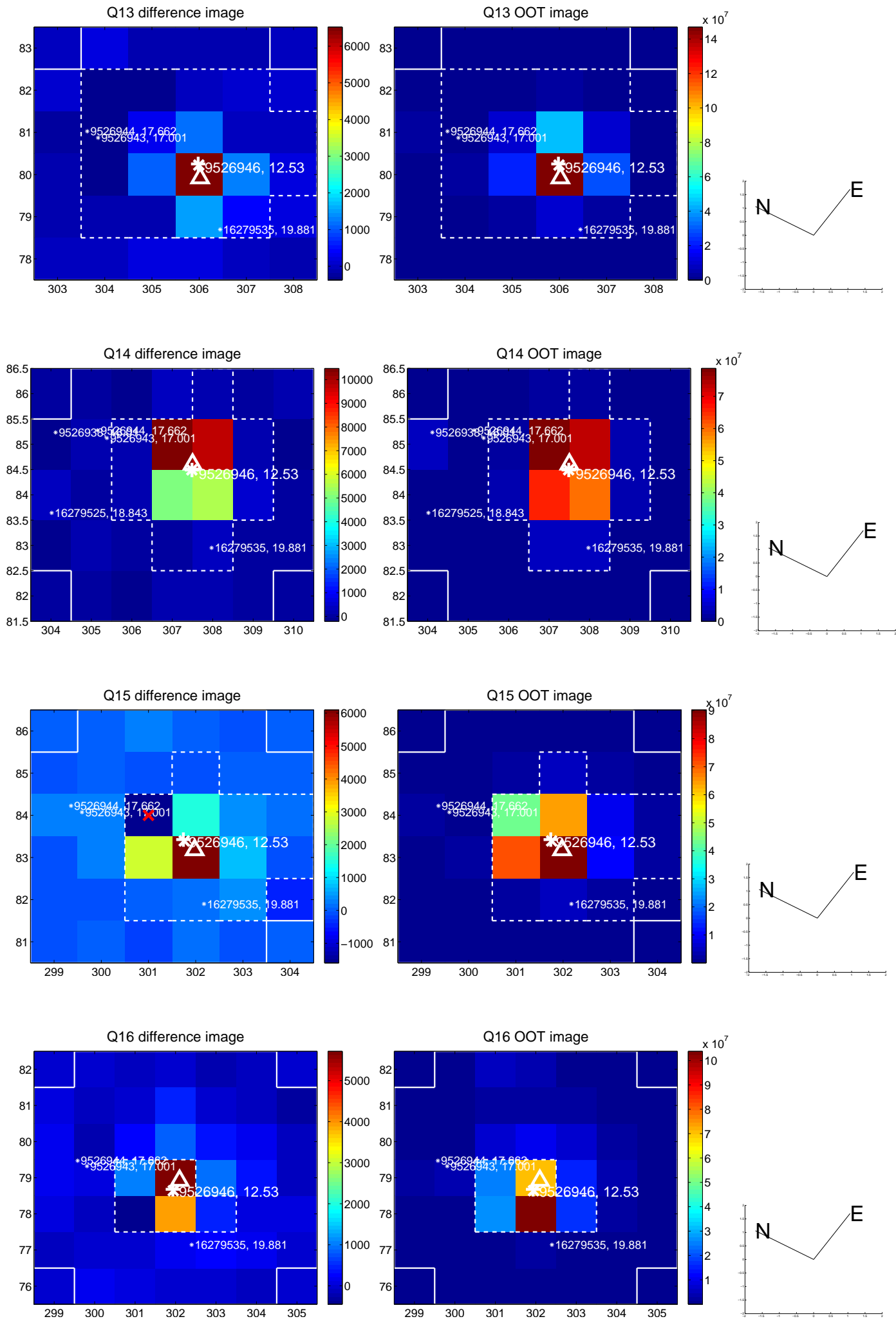
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



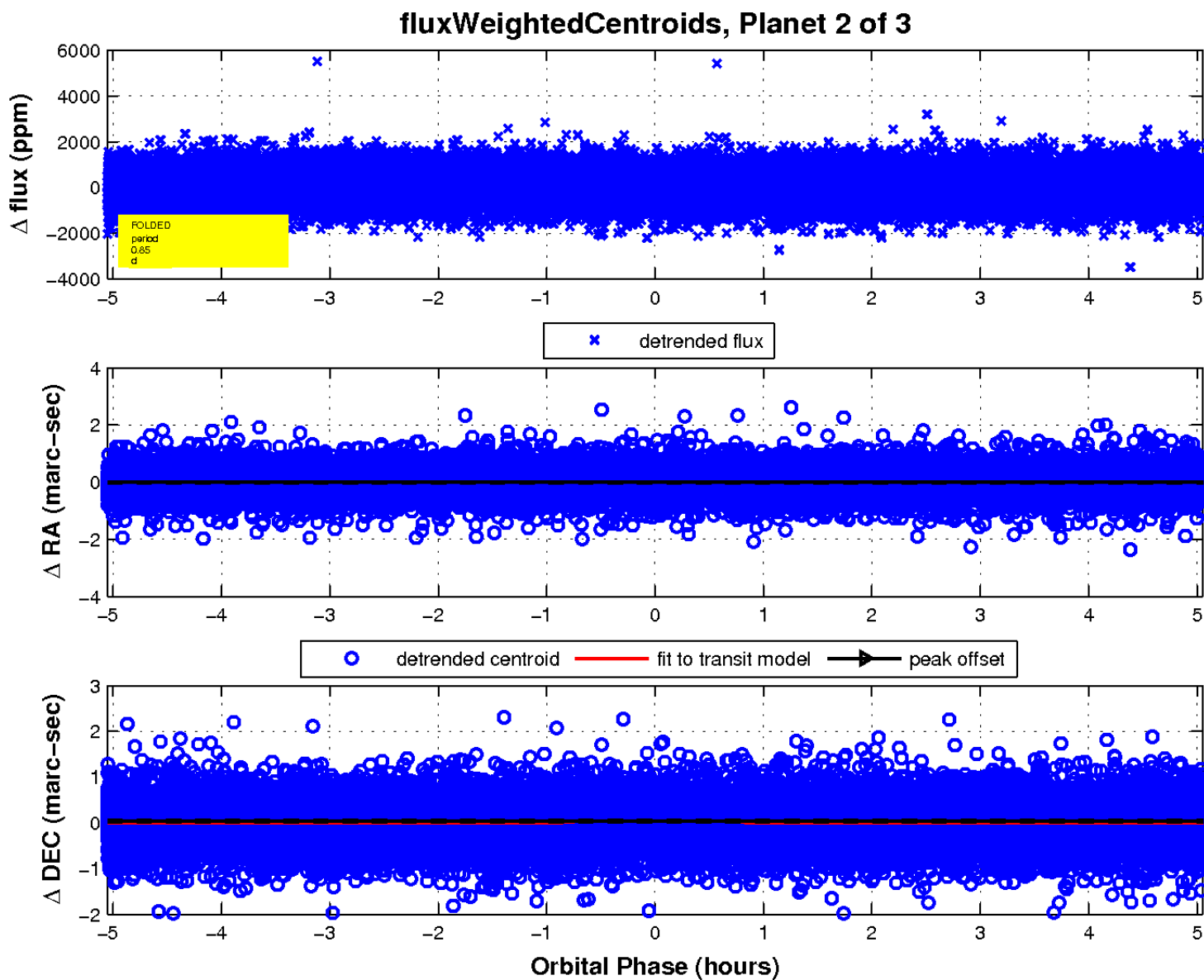
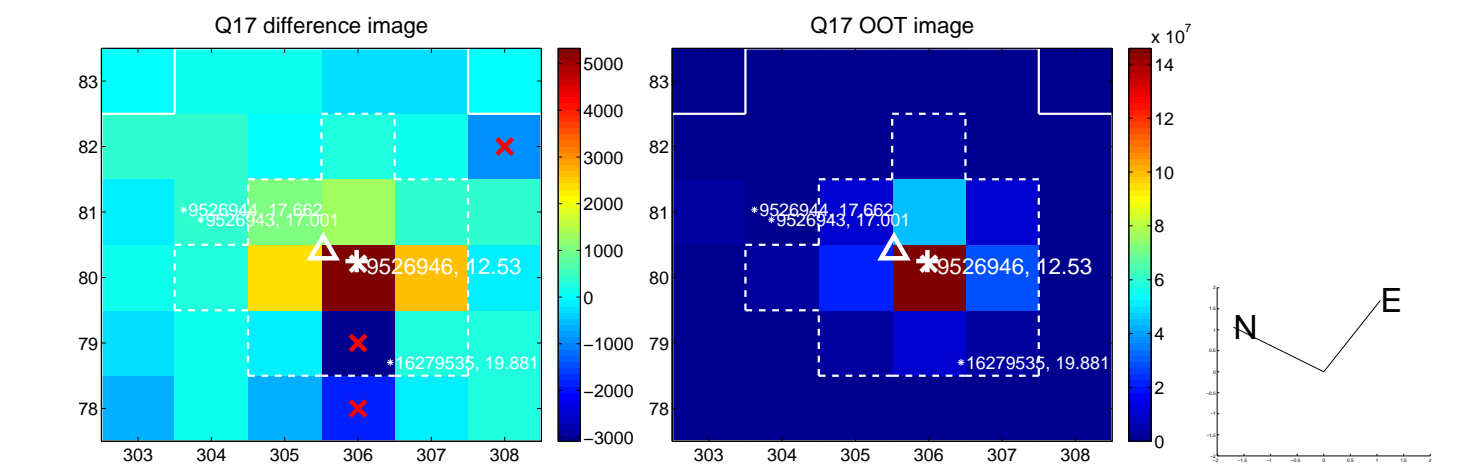
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

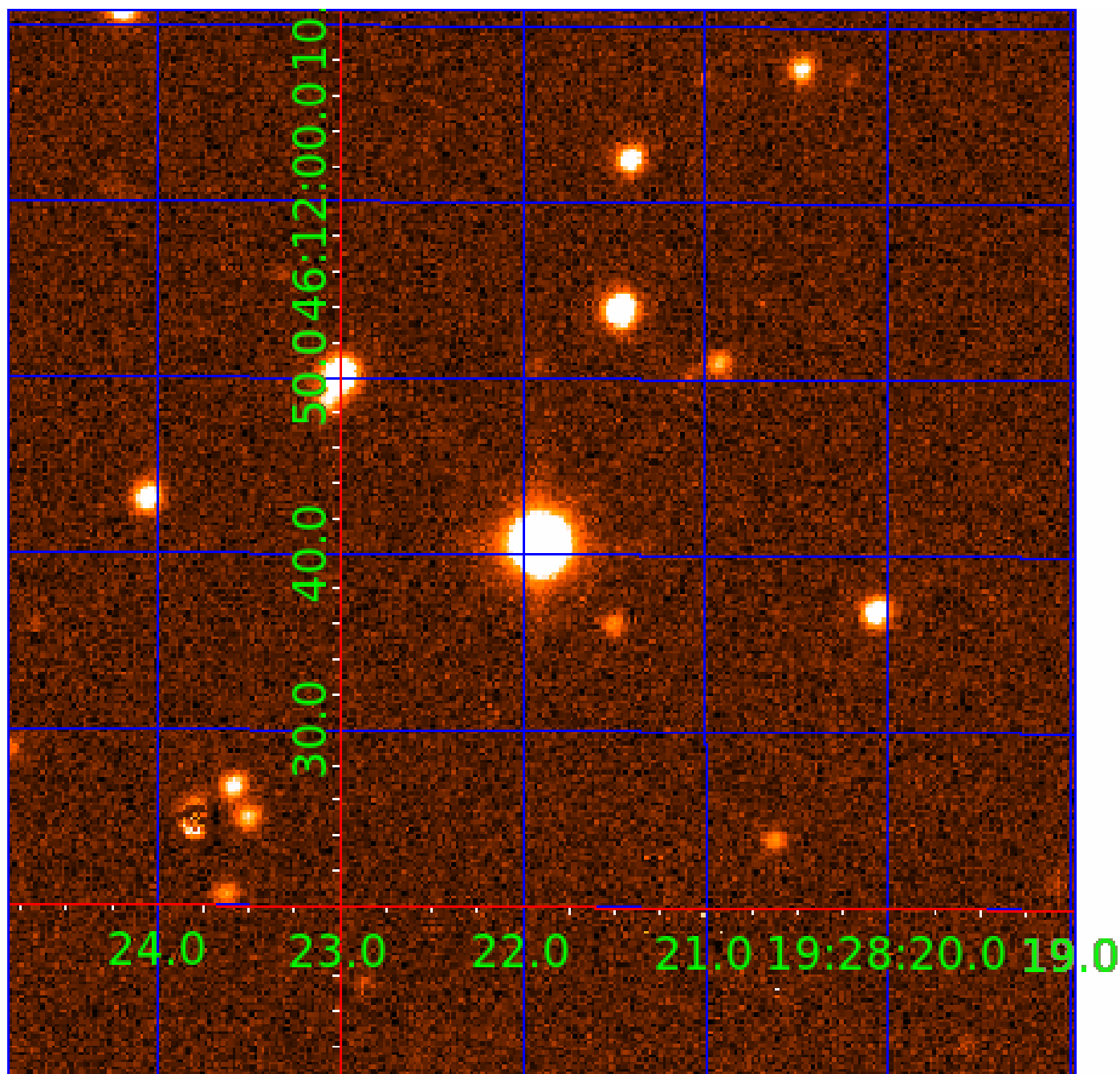


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009526946

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})
009526946-01	OBS	No	0.849310	132.024093	67.4	2.743	11.6	12.2	1.93	8677	1.82	48469.92
009526946-02	OBS	No	0.849306	131.811400	62.4	1.684	8.1	8.7	1.93	8677	1.76	48470.22
009526946-03	OBS	No	1.800493	131.725071	90.1	21.606	8.9	14.4	1.93	8677	2.18	17798.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009526946-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
009526946-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD
009526946-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_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.

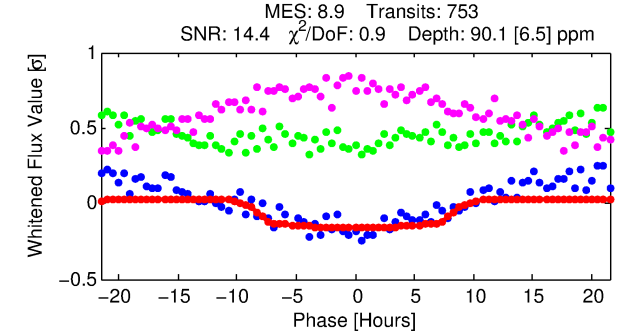
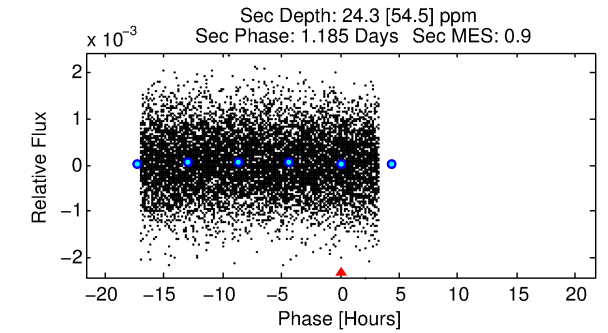
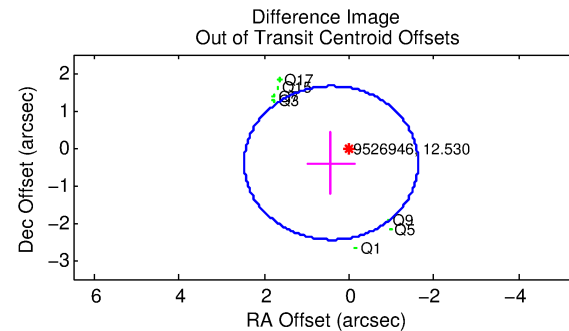
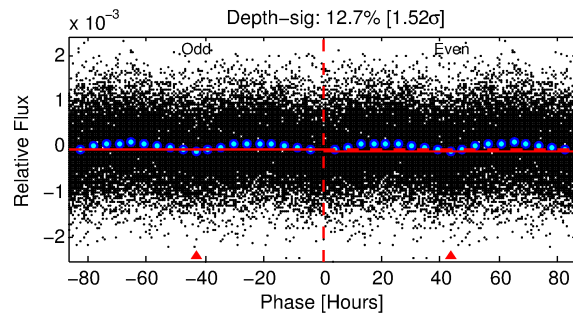
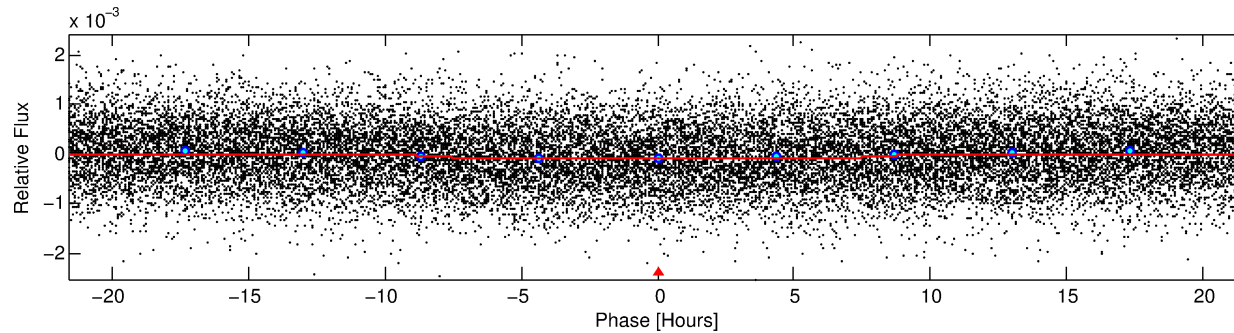
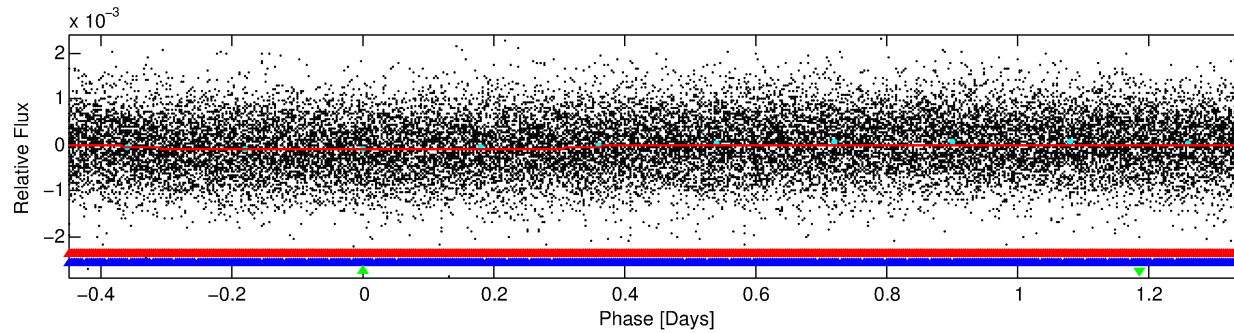
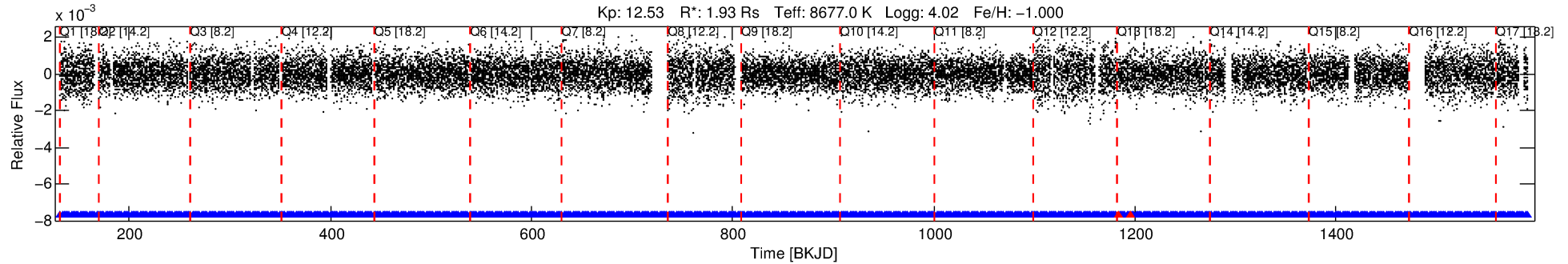
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009526946-03

No Significant Match Found

DV One-Page Summary

KIC: 9526946 Candidate: 3 of 3 Period: 1.800 d



DV Fit Results:

Period = 1.80049 [0.00006] d
Epoch = 131.7251 [0.0235] BKJD
Rp/R* = 0.0104 [0.0005]
a/R* = 1.01 [0.00]
b = 0.93 [0.04]
Seff = 17798.05 [11124.24]
Teff = 2945 [460] K
Rp = 2.18 [0.82] Re
a = 0.0326 [0.0121] AU
Ag = 2.99 [6.95] [0.29σ]
Teffp = 5989 [3365] K [0.90σ]

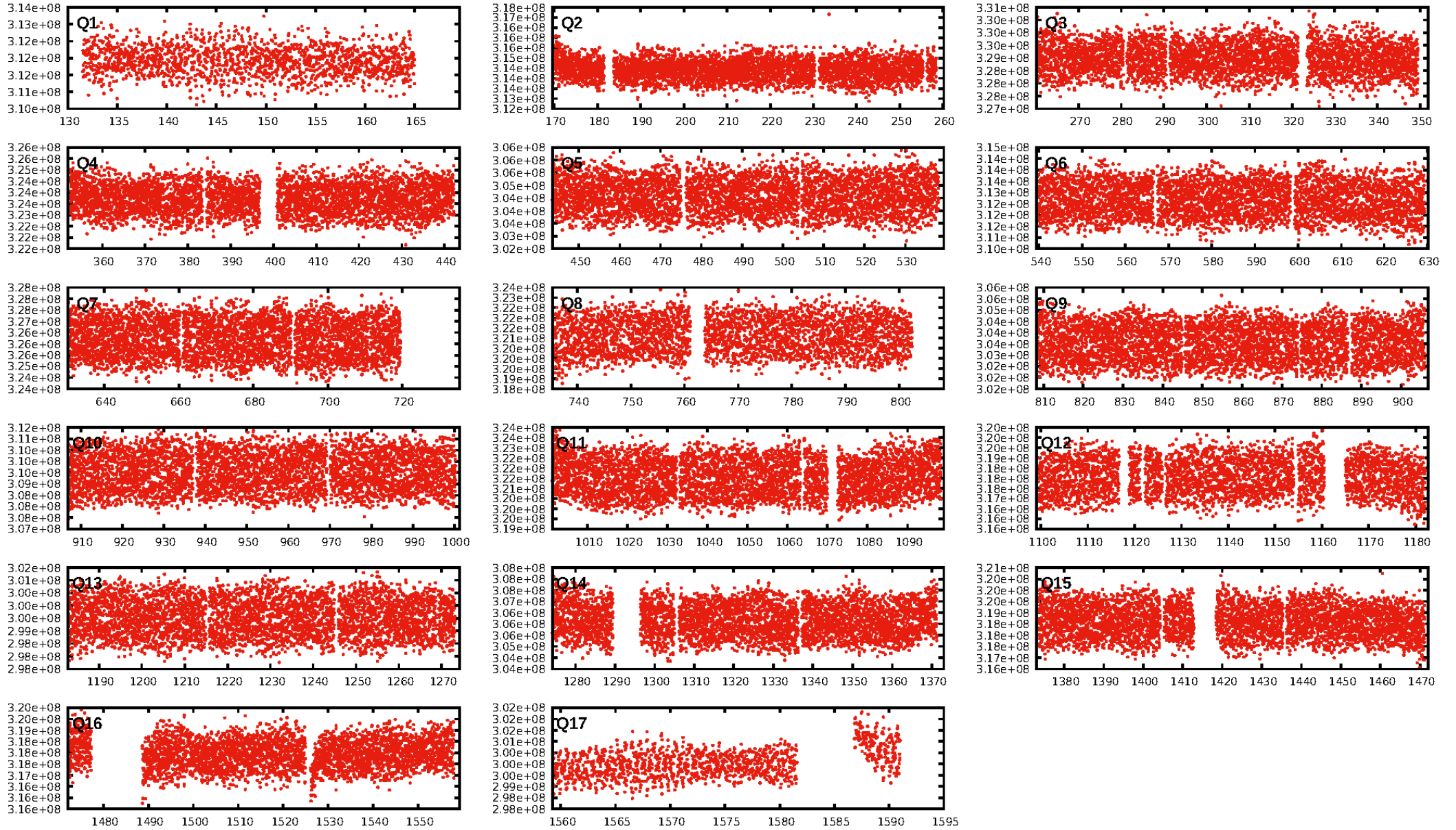
DV Diagnostic Results:

ShortPeriod-sig: 70.5% [1.05σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [717/719]
GhostDiagnostic-chr: 4.084
Centroid-sig: 0.0%
Centroid-so: 0.215 arcsec [2.33σ]
OotOffset-rm: 0.578 arcsec [0.85σ]
KicOffset-rm: 0.563 arcsec [0.90σ]
OotOffset-st: 0/3/0/4 [7]
KicOffset-st: 0/3/0/4 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.00 [0/17]

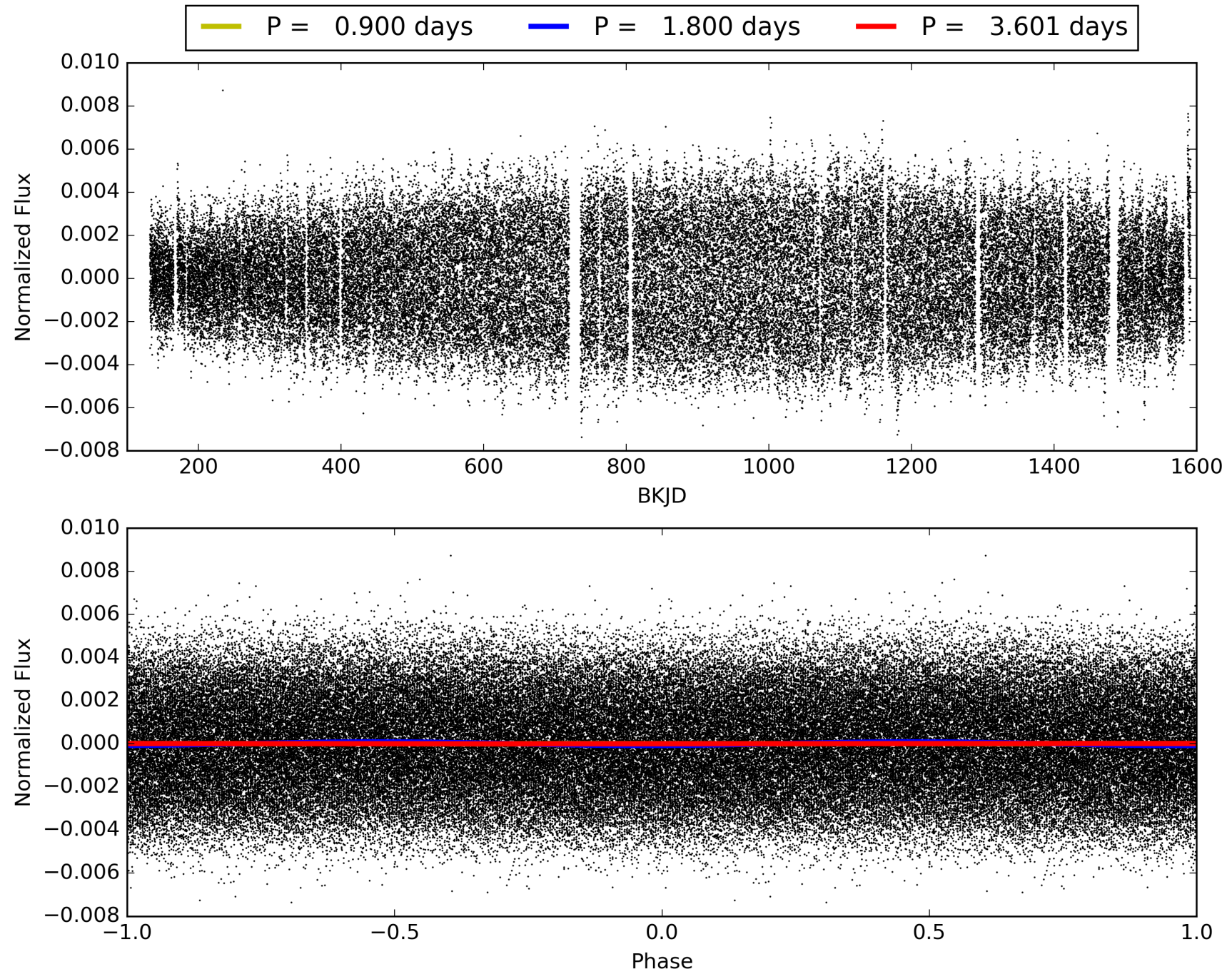
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:31:17 Z

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

TCE 009526946-03, PDC Light Curves

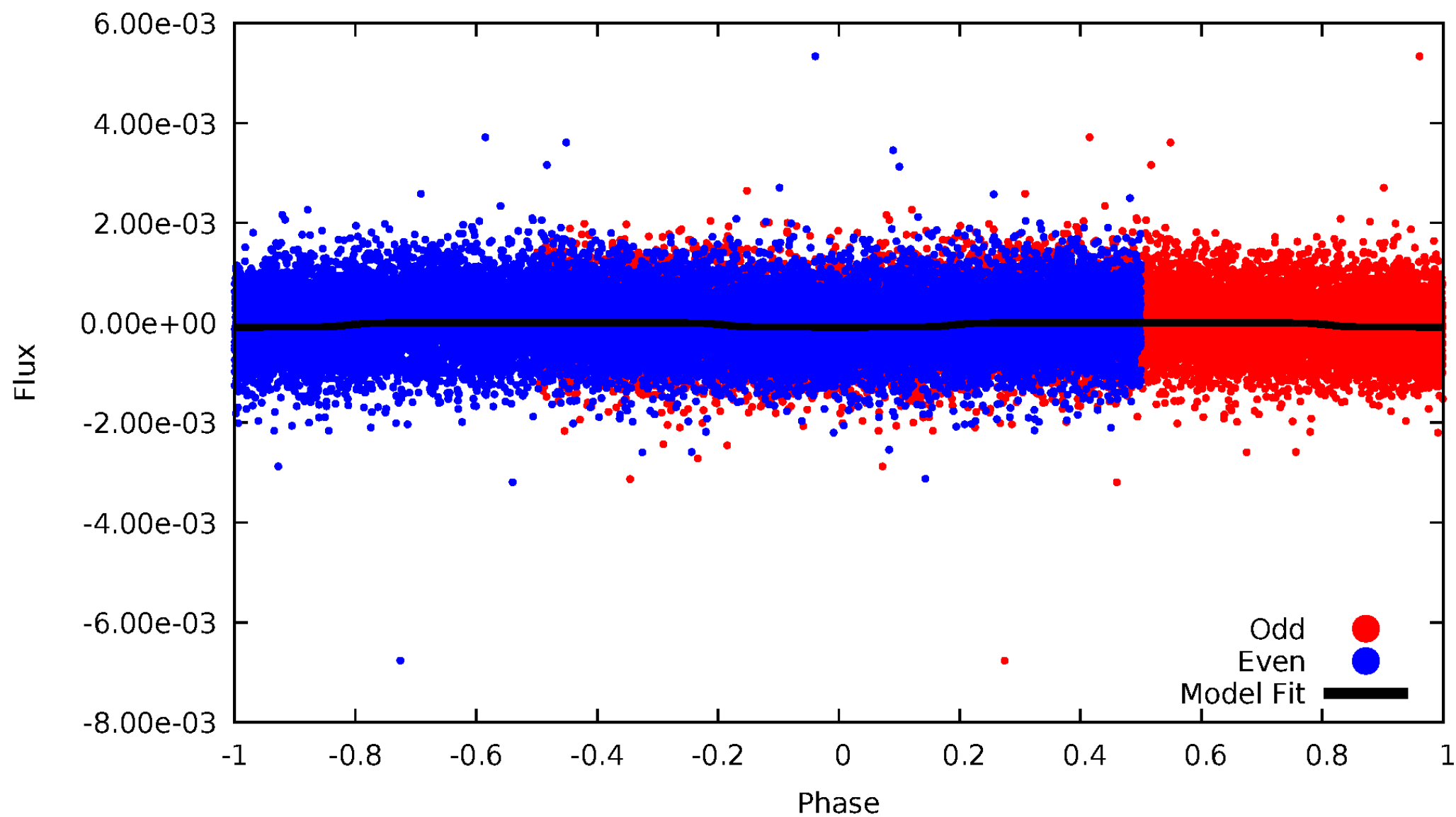


TCE 009526946-03



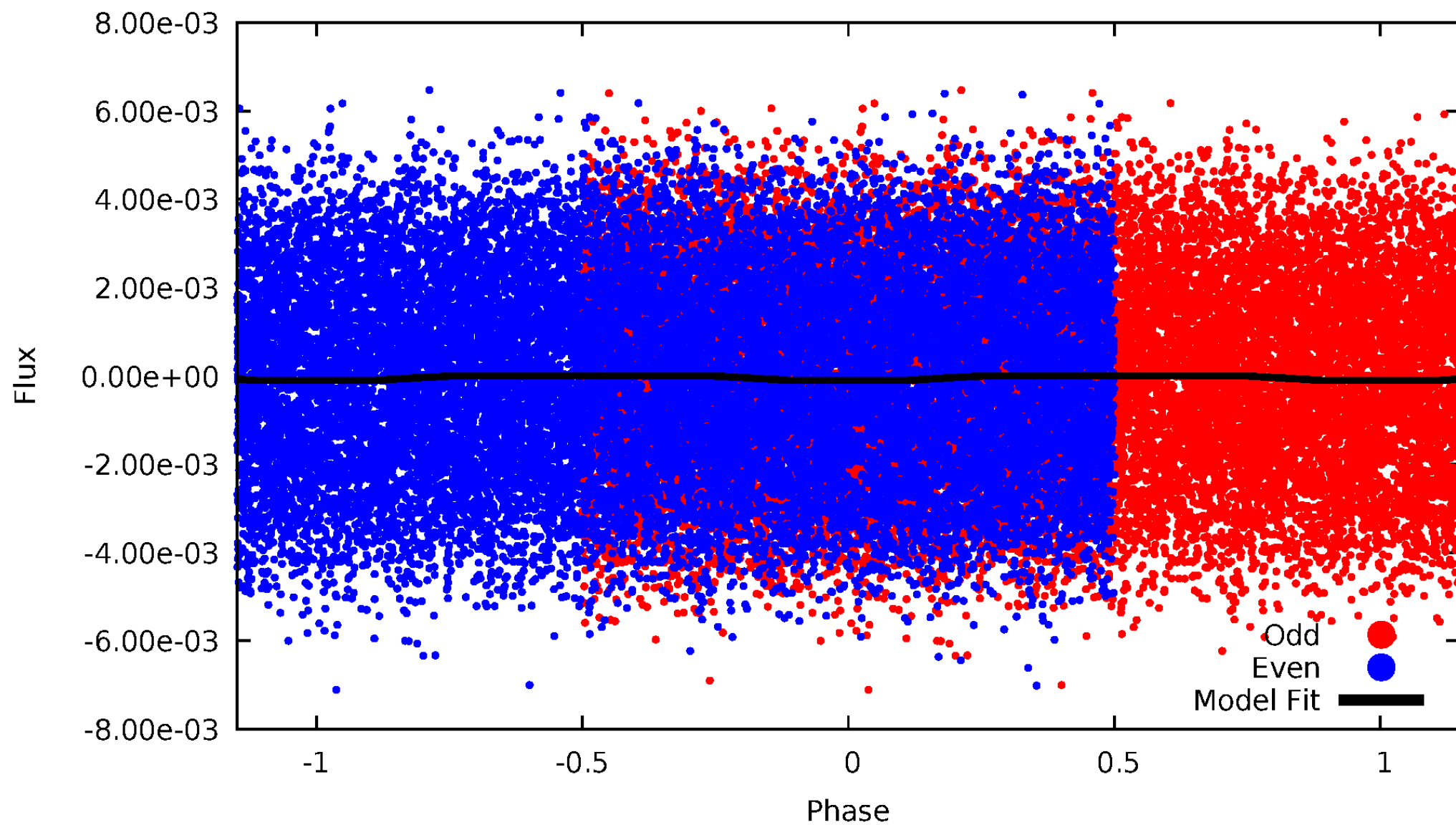
DV Odd/Even

TCE 009526946-03

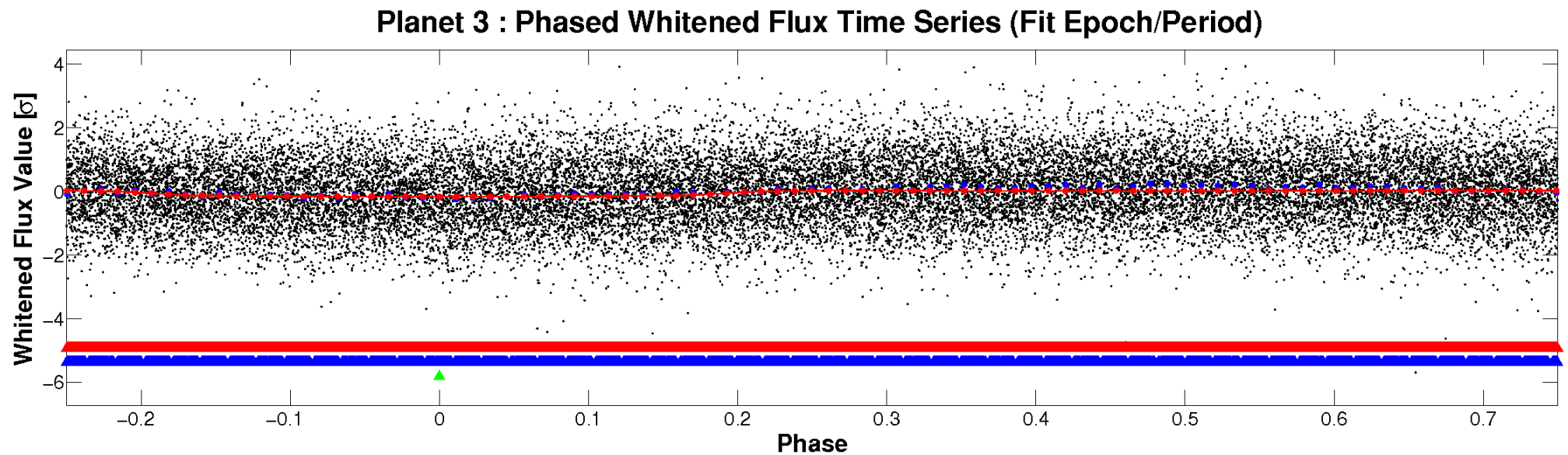
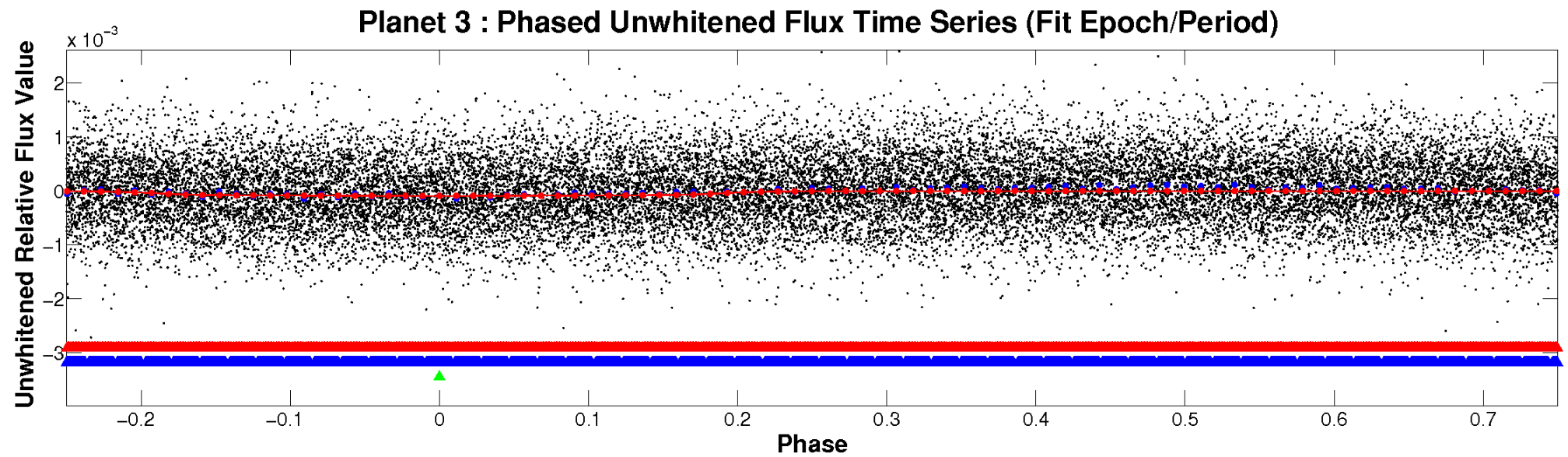


ALT Odd/Even

TCE 009526946-03

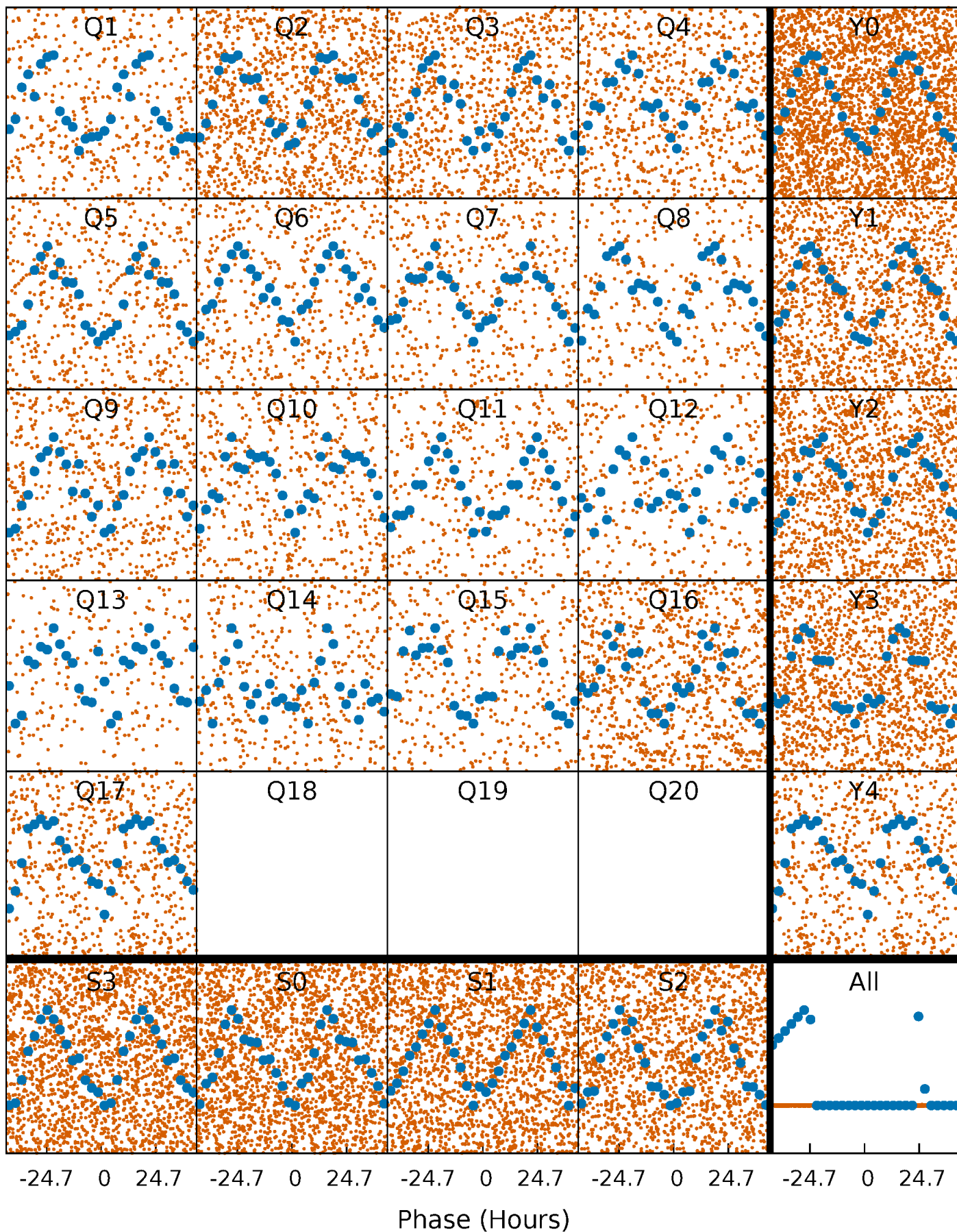


Non-Whitened Vs. Whitened Light Curve



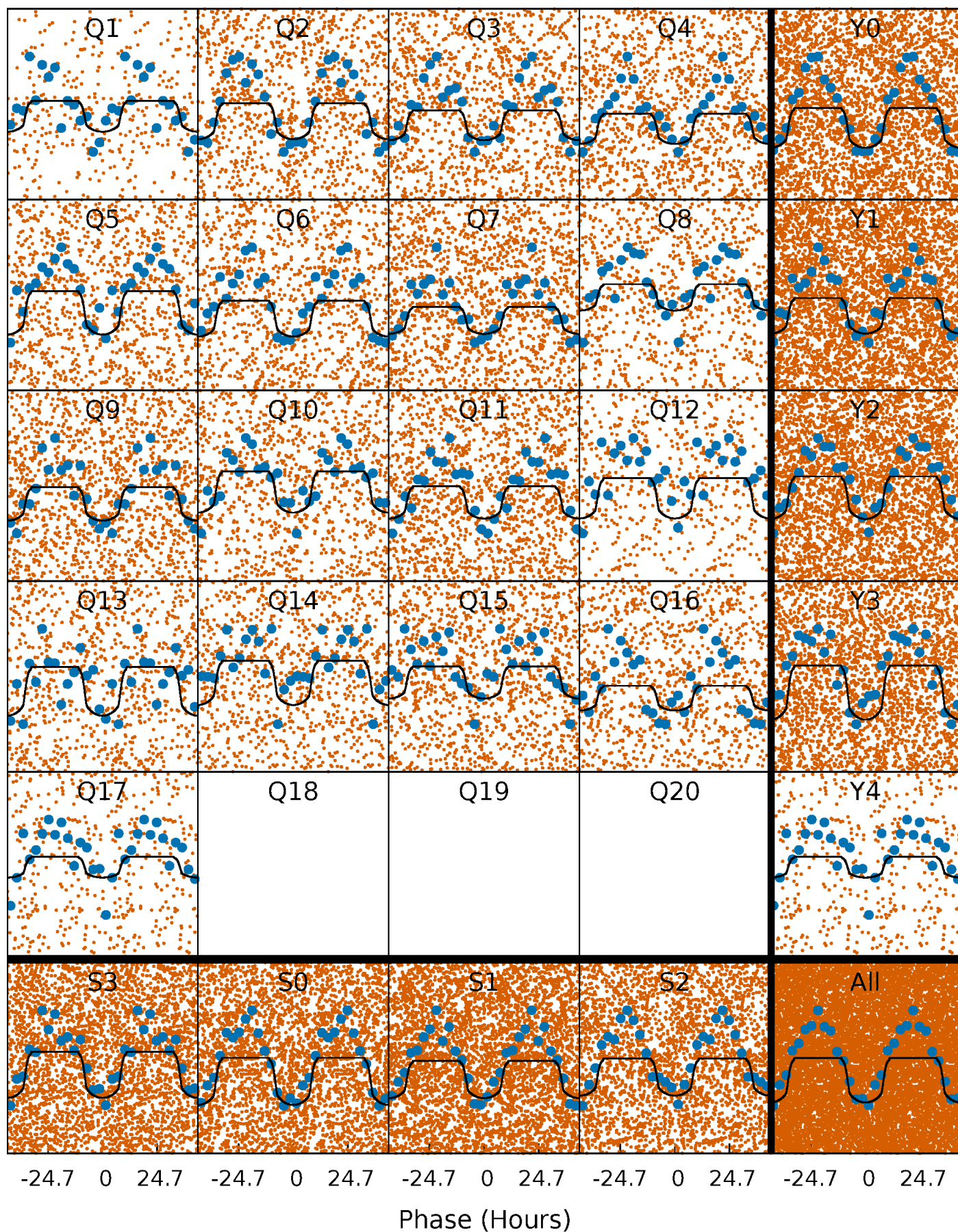
PDC Quarter-Phased Transit Curves

TCE 009526946-03 P= 1.800493 Days $T_0=131.725070$ (BKJD)



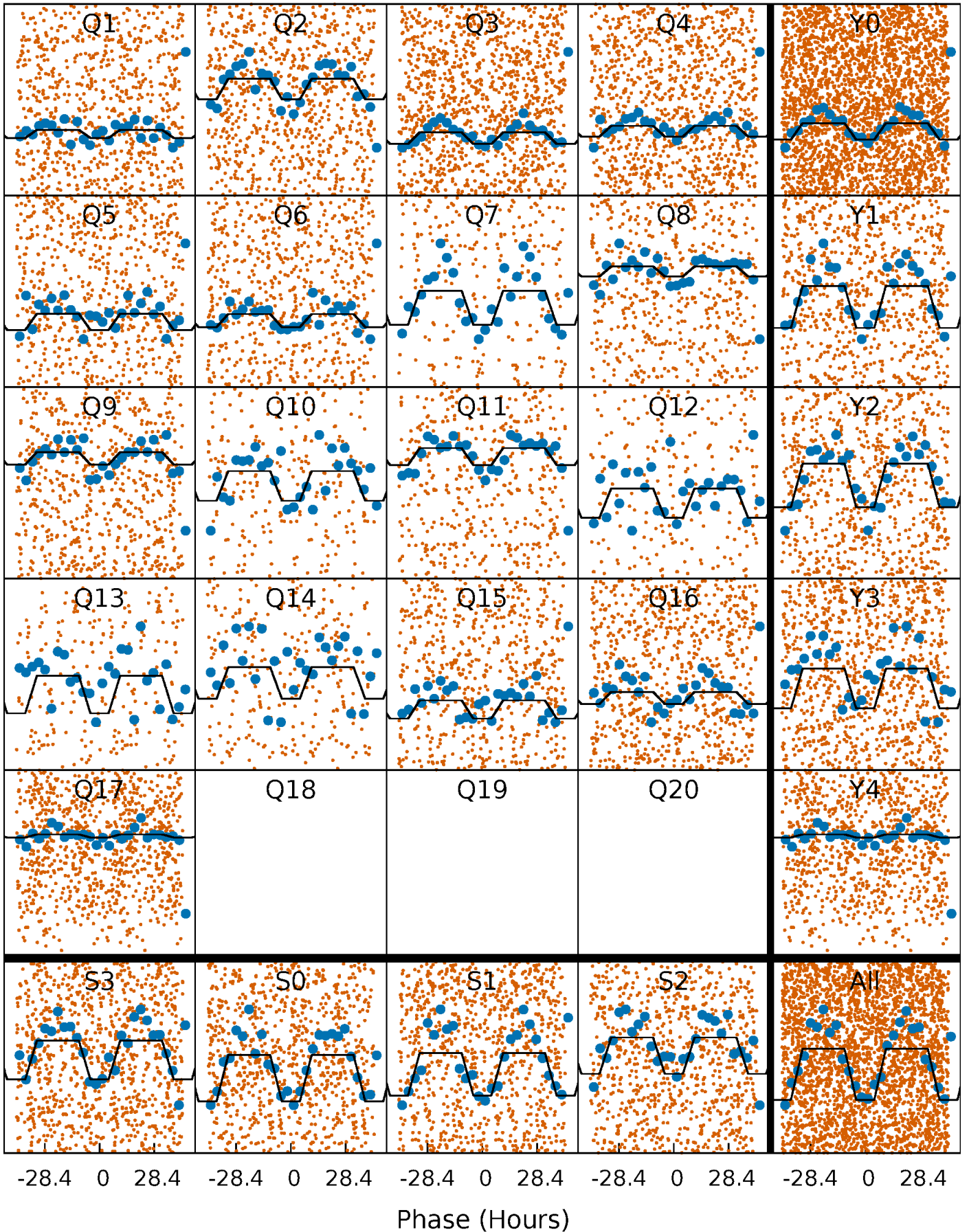
DV Quarter-Phased Transit Curves

TCE 009526946-03 P= 1.800493 Days $T_0=131.725070$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

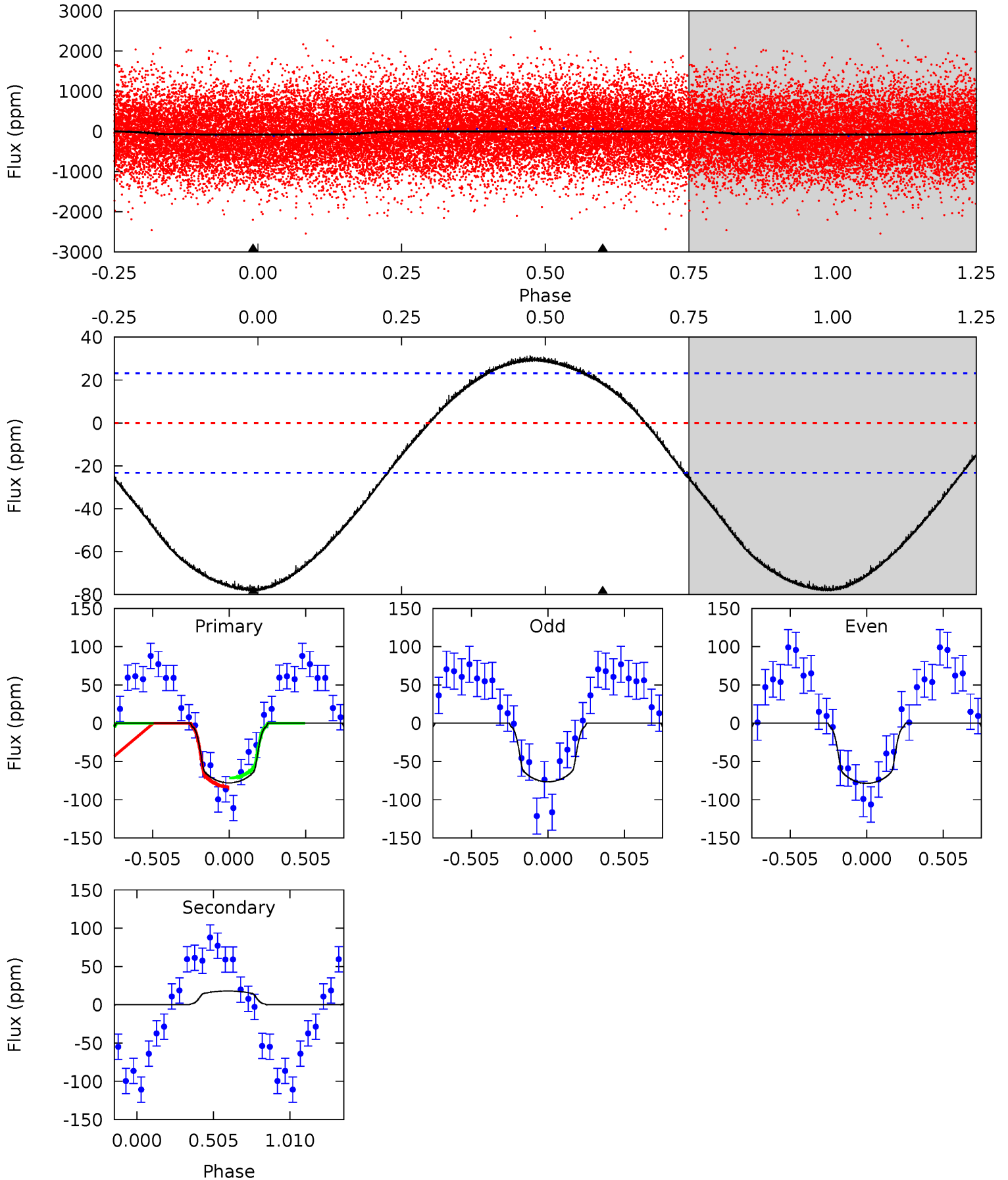
TCE 009526946-03 P= 1.800503 Days $T_0=131.665009$ (BKJD)



DV Model-Shift Uniqueness Test

009526946-03, P = 1.800493 Days, E = 129.924577 Days

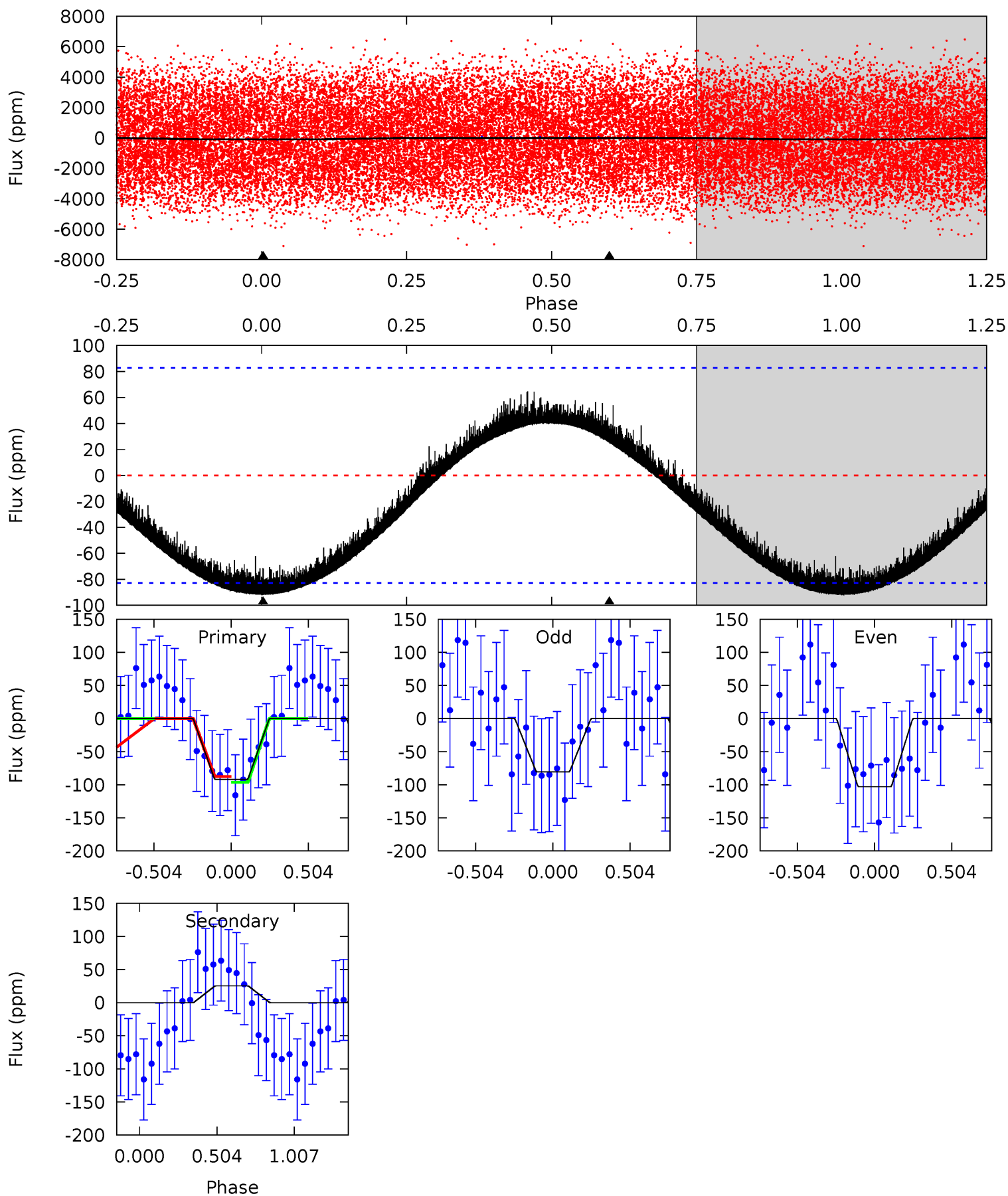
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	-3.26	0	0	4.21	0.67	1.53	14.2	14.2	-3.26	-3.26	0.18	1.10	0.29	1.09



Alt Model-Shift Uniqueness Test

009526946-03, P = 1.800503 Days, E = 129.864506 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.67	-1.28	0	0	4.21	0.67	0.61	4.67	4.67	-1.28	-1.28	0.57	0.08	0.41	0.22



Stellar Parameters For KIC 009526946

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8677^{+275}_{-336}	$4.021^{+0.360}_{-0.090}$	$-1.000^{+0.250}_{-0.300}$	$1.931^{+0.358}_{-0.717}$	$1.427^{+0.172}_{-0.210}$	$0.279^{+0.689}_{-0.095}$
	+3%/-4%	+9%/-2%	+25%/-30%	+19%/-37%	+12%/-15%	+247%/-34%
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 009526946-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	18 ± 6	$2.09^{+0.29}_{-0.40}$	4000^{+285}_{-388}	-5495^{+443}_{-389}	$-2.484^{+0.945}_{-1.459}$
Alt.	25 ± 20	$2.02^{+0.28}_{-0.40}$	4007^{+274}_{-387}	-6011^{+1482}_{-944}	$-3.693^{+2.859}_{-3.602}$

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 $A_{obs} \gg 1.0$

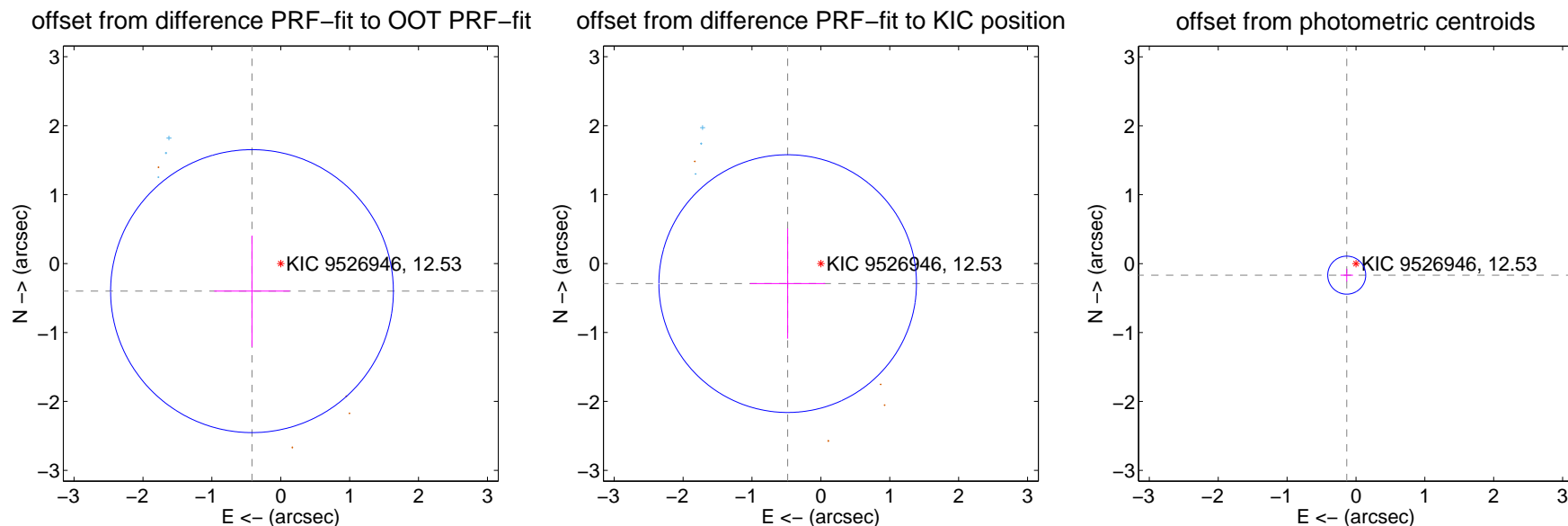
DV Centroid Data

Supplemental centroid analysis for 009526946-03. Kepler magnitude: 12.53. Transit SNR 14.45

There are 3 quarters with good PRF difference image offsets

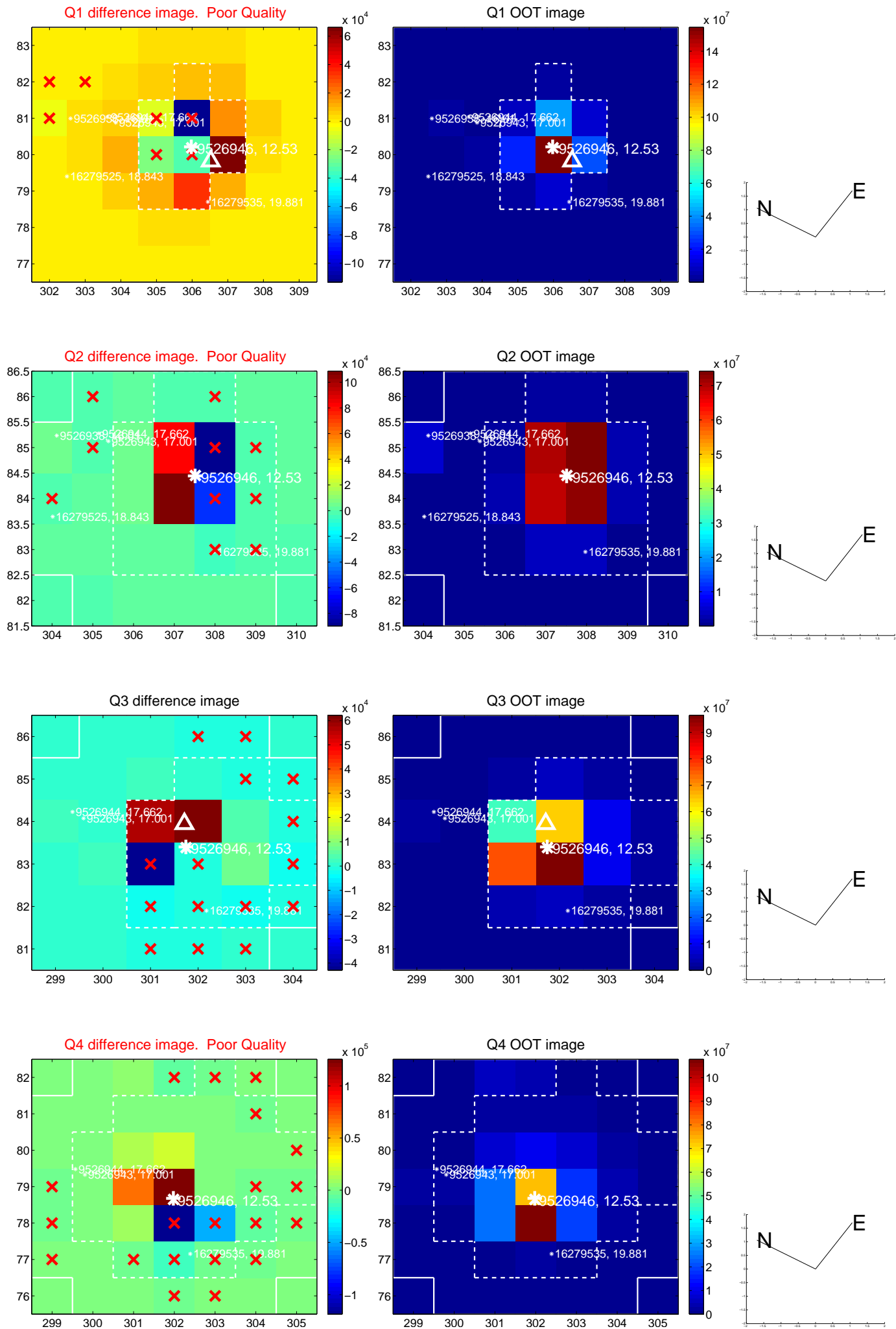
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.578 ± 0.684	0.85	0.417 ± 0.548	-0.400 ± 0.806
PRF-fit source offset from KIC position	0.563 ± 0.623	0.90	0.482 ± 0.545	-0.291 ± 0.799
photometric centroid source offset	0.21 ± 0.09	2.33	0.13 ± 0.09	-0.17 ± 0.09

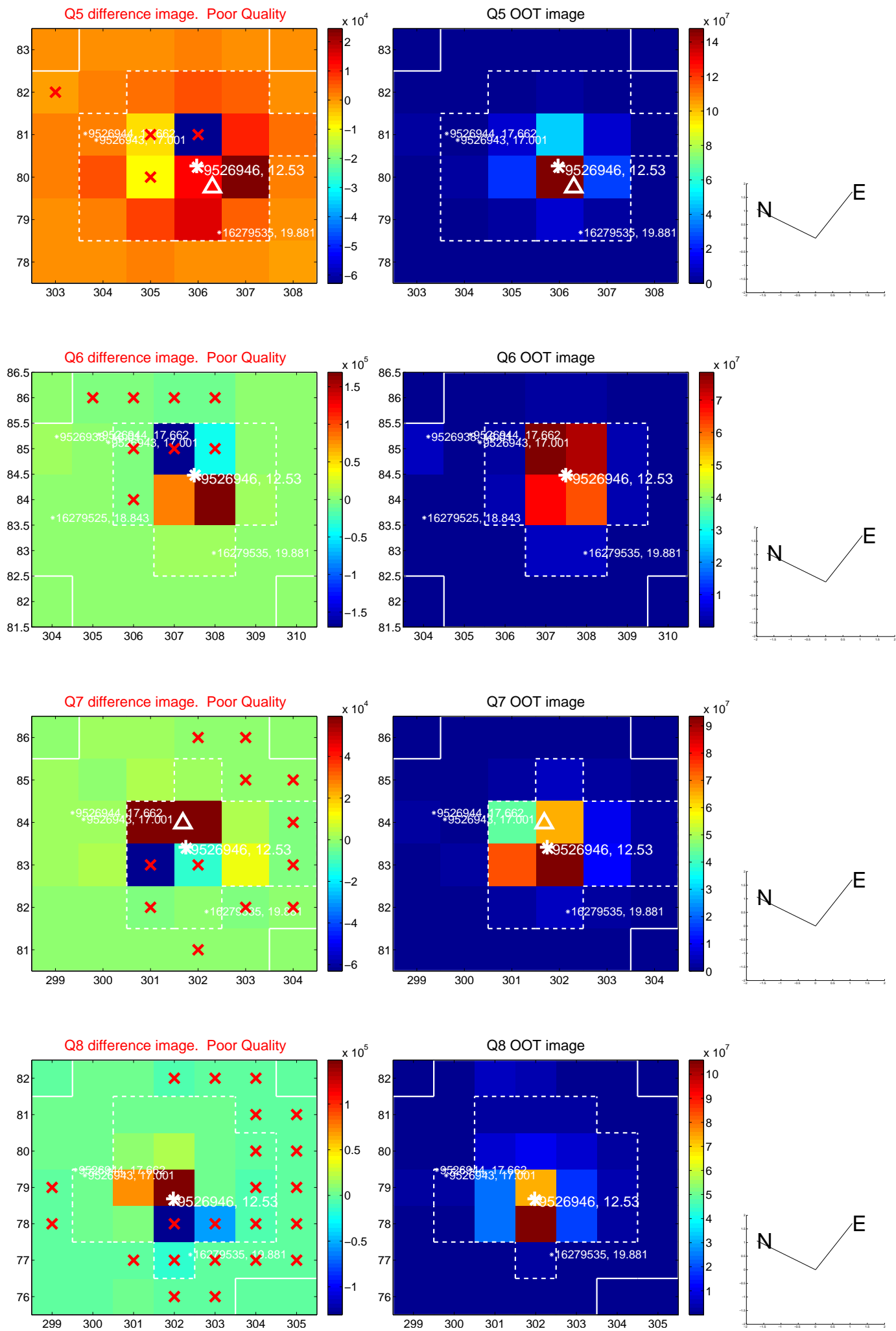


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

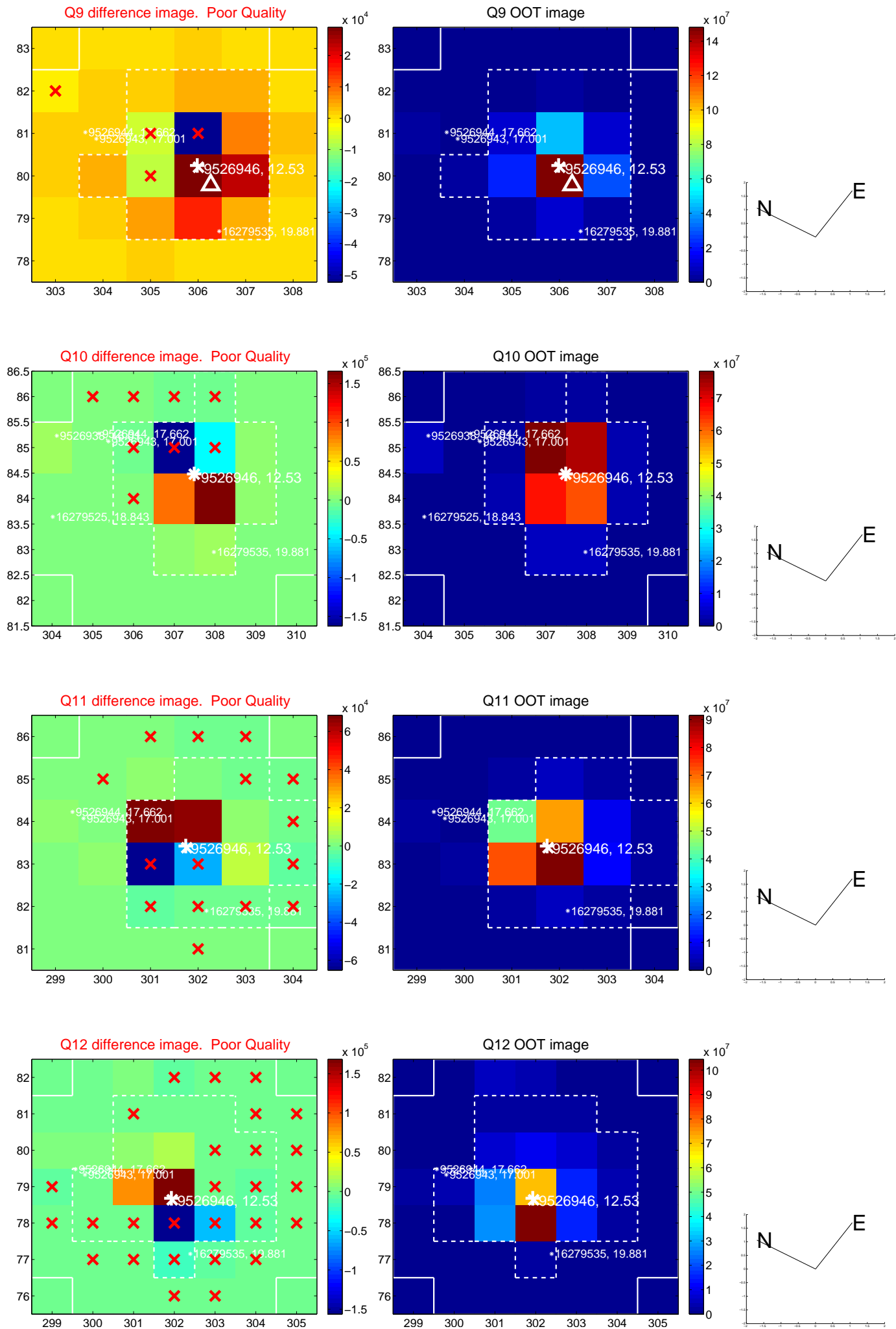
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



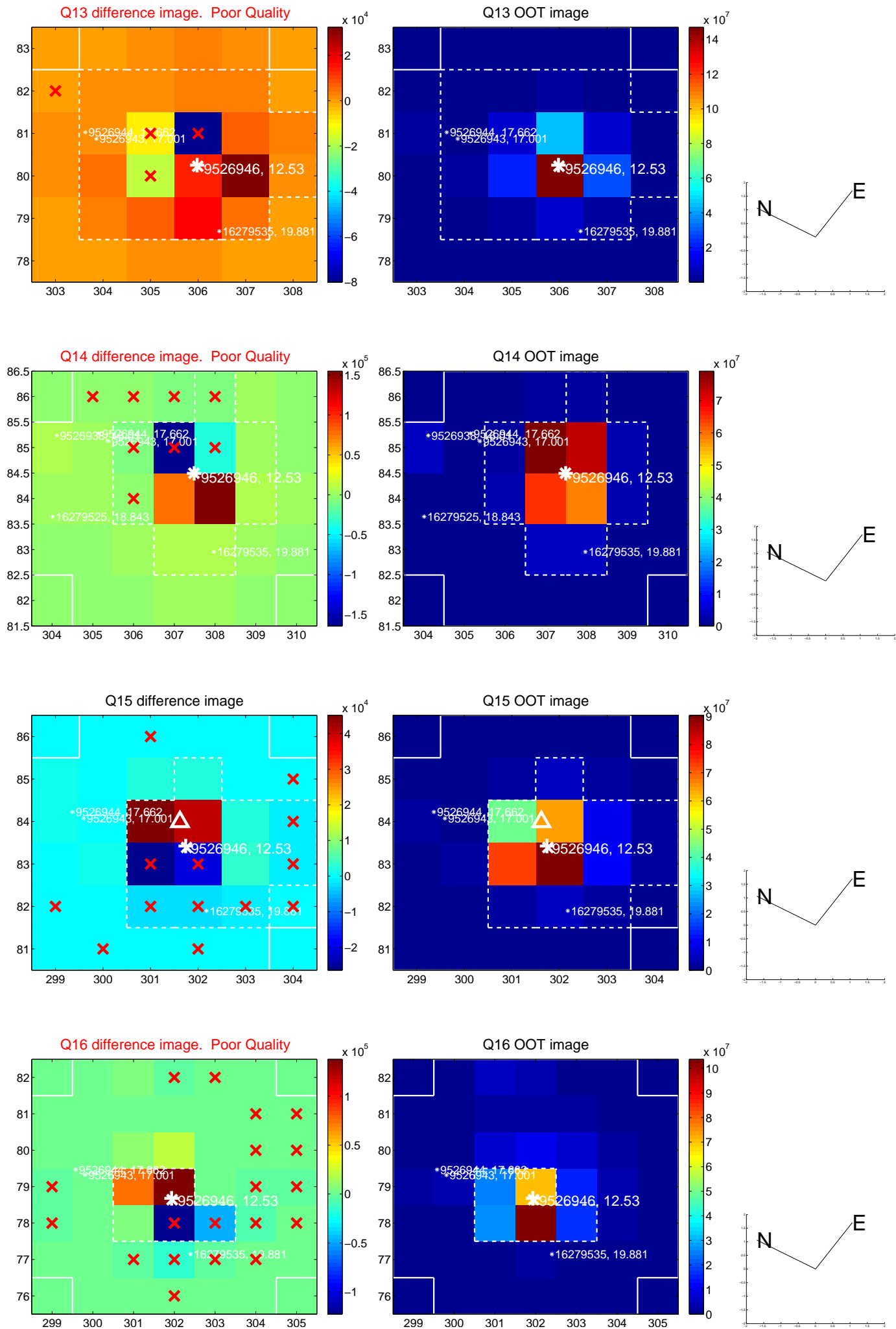
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



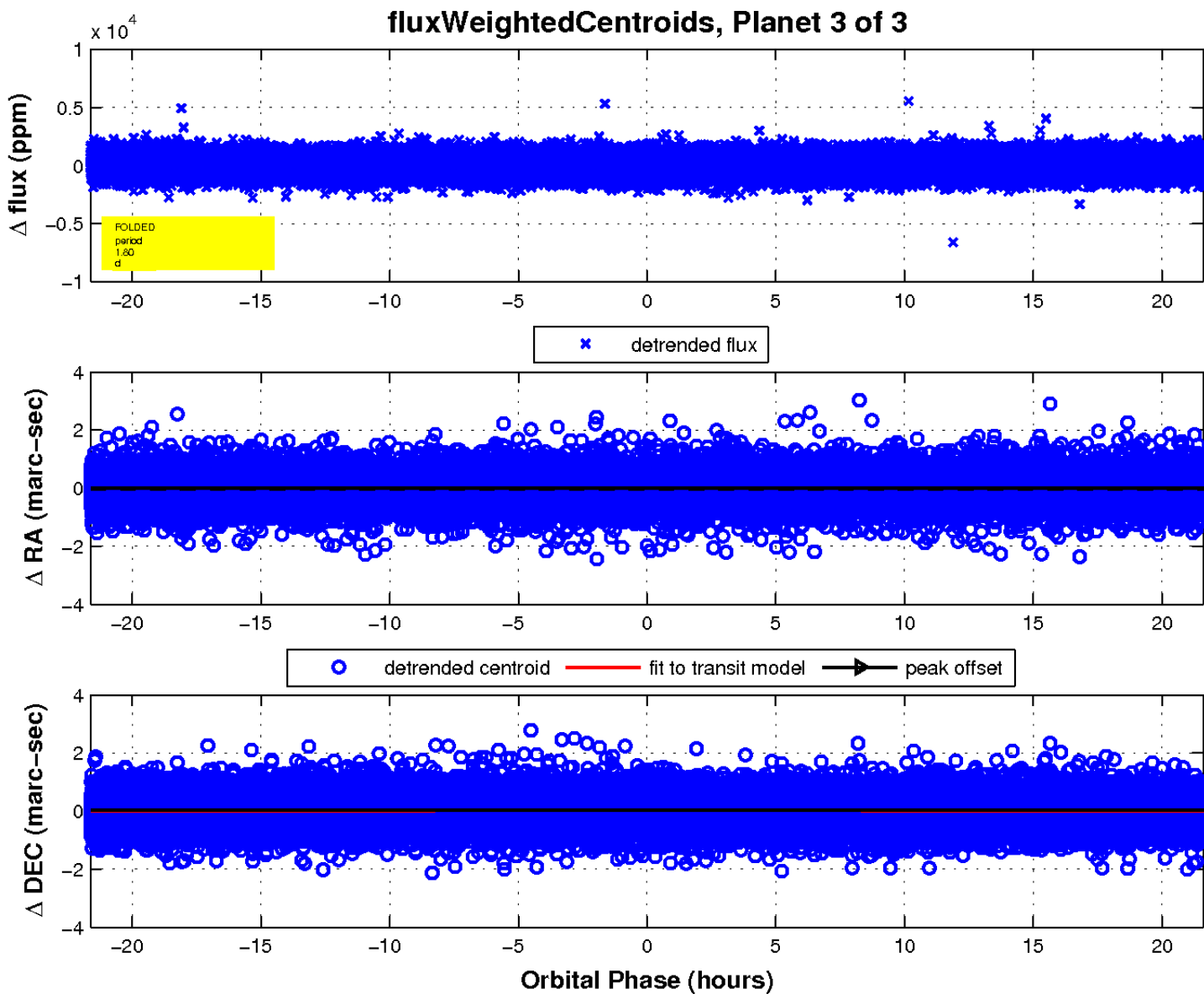
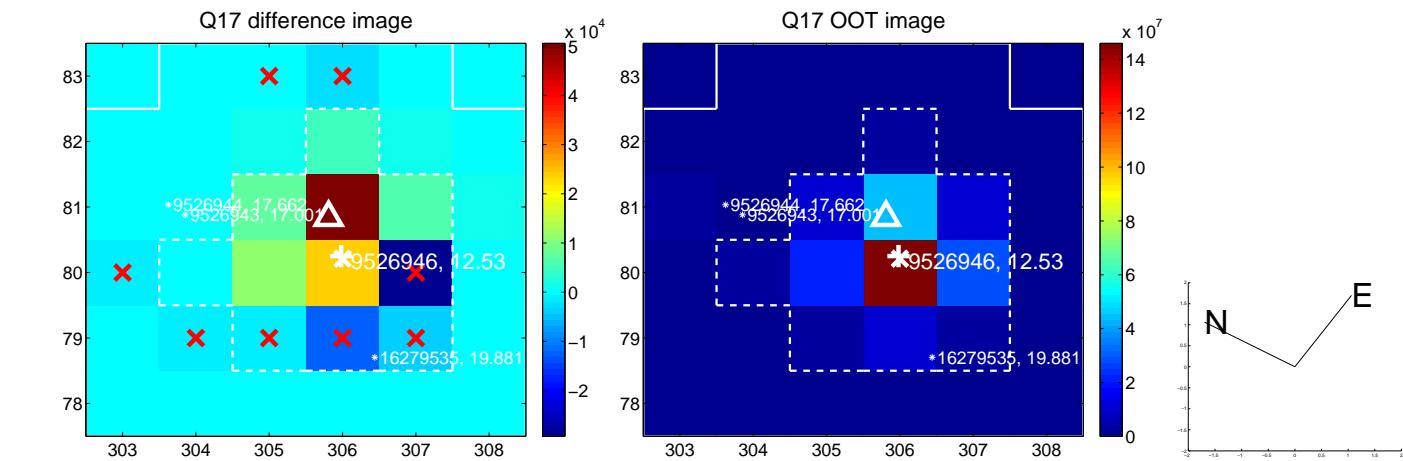
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

